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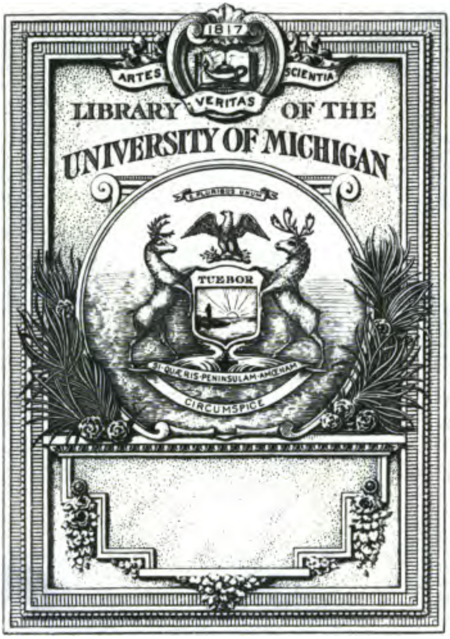
BIENNIAL REPORT
STATE ENGINEER OF WYOMING

1891-1892



THE GIFT OF
The Engineering Society

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FIRST

BIENNIAL REPORT

Compliments of
Elwood Mead,
State Engineer.

office

1891 and 1892.

CHEYENNE, WYO.:
THE S. A BRISTOL COMPANY, PRINTERS AND BOOKBINDERS.
1892.

FIRST
BIENNIAL REPORT
OF THE
STATE ENGINEER
TO THE
GOVERNOR OF WYOMING.

Engineer's office

1891 and 1892.

CHEYENNE, WYO.:
THE S. A BRISTOL COMPANY, PRINTERS AND BOOKBINDERS.
1892.

CHEYENNE, WYO, NOV. 30th, 1892.

TO THE HON. AMOS BARBER,

Acting Governor:

SIR—As provided by Section 12, Chapter 8, Laws of 1890–91, I have the honor to submit a report of the work of this office during the past two years, with such suggestions as to future legislation as will, I trust, promote the industrial interests with which it is connected.

Yours very respectfully,

ELWOOD MEAD,

State Engineer.

Gift
Engineering Society
11-22-32

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OF THE

STATE BOARD OF CONTROL.

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ASSISTANTS TO STATE ENGINEER.

P. L. Naismith; W. F. Code in 1891.
M. C. McFarlane in 1892.

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*W. J. Clarke and William Hinton resigned.

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INTRODUCTORY

Extent and Character of the State's Agriculture. Records of Ditch Construction. Disparity between Acreage under Ditch and Acreage under Cultivation. Need of Increase in Cereal Production. Changes in Methods Now Taking Place. Opportunities for Future Extension of Irrigated Area.

Since the last report was issued from this office there has been a marked increase in popular interest in irrigation. The reports of the Geological Survey and of the Department of Agriculture; the discussions in Congress over the proposed cession of the public lands to the arid States; the several conventions called to consider this matter and the able and exhaustive reports of the 11th census have added to the knowledge of the subject and to the general appreciation of its importance.

In this State, the carrying into effect of the provisions of the Constitution has served to show, in a manner not possible before, the nature and extent of the progress already made and requirements necessary to the further extension of the irrigated area. The radical change in the water laws, brought about by statehood, have been accompanied by almost equally apparent changes in the direction of the irrigators' energies. The latter may be broadly described by the statement that there has been a cessation of ditch building and a considerable increase in the use made of those already constructed. This change, while coincident with the enactment of the present water law, is largely due to other causes and would have sooner or later been manifest under any law. These causes, and the probable results, are of sufficient importance to warrant discussion.

DITCH BUILDING UNDER TERRITORIAL LAWS.

Since January 1st, 1891, the State Engineer's office has been the office of record of all claims to water. Prior to that date such claims were recorded in the office of the County Clerk of each county. With the change in the law, these records were transferred to the Engineer's office. These have been carefully compiled; all the claims to water from each stream, or source of supply, grouped together and an abstract of the claims in each water division, irrespective of county boundaries, prepared. From these abstracts a careful summary of the progress under territorial laws has been made. In making this, all the sources of information at the command of this office were utilized. Statements known to be erroneous were rejected. Duplicate statements of the same claim were often recorded in several counties; these had been eliminated in preparing the abstract. Speculative filings, where the recording of the claim was the only step taken to secure an appropriation, were, wherever known, omitted. In all, about one-third of the recorded statements were omitted from the summary. The totals of the summary were further reduced by the failure of many to state essential facts. About one-fifth of the statements included in the summary failed to state the capacity of the ditch, and between one-third and one-fourth omitted to give the acreage watered. As there was no way of supplying these omissions, and as the amounts which were given in other statements were almost invariably in excess of the truth, it was believed that the omitted quantities would serve, in part, to offset such excess and no addition was made on account of these. The total acreage as given, represents therefore only twenty-two hundred instead of over three thousand statements, and so with the other amounts in the table given below. On account of these omissions it is believed that the summary does not exceed the actual construction.

TABLE NO. 1.

Summary of "Claims to Water" recorded in the County Clerk's Offices prior to Jan. 1, 1891. Taken from abstracts in State Engineer's Office.

No. of water divisions.	Total No. of ditches.	Total No. sources of supply.	Total acreage claimed to be irrigated.	Volume of water, cub. ft. per sec.
One	1,575	263	1,407,940	9,233
Two	667	136	346,586	10,808
Three	276	74	75,673	3,741
Four	568	158	342,582	2,857
Total ...	3,086	631	2,172,781	25,639

During the past two years a survey has been made of a number of the streams included in this summary. These were made for the purpose of determining the length and capacity of all existing ditches with the acreage which they can be made to water. The results of these surveys afford an excellent opportunity for determining the accuracy of the records. So far as they have been compared, it has served to show two things—their utter unreliability for particular streams, and second, that the actual acreage under ditch is probably in excess of the acreage given in the above table.

To illustrate this, four streams have been taken at random, one from each water division, and a table prepared showing the recorded ditches, the ditches found by the survey, with the capacity and acreage which they can water. It will be seen that the actual acreage under ditch is in excess of the acreage given in the summary.

TABLE NO. 2.

Comparison of four streams showing relative acreage under ditch, as given in statements of claim in Engineer's office, and as shown by surveys in 1891 and 1892.

No. water division.	Name of stream.	No. ditches recorded.	Acreage under ditch as given in statement of claim.	No. of ditches found by survey.	No. of acres under ditch as survey'd	Per cent. increase.	Per cent. decrease.
1	Pass Creek	21	6,658	30	12,897	93.7	
2	Little Goose Creek	18	24,505	18	27,963	14.1	
3	Little Popo Agie	14	3,040	16	3,060	0.66	
4	Fontenelle	14	8,260	16	3,318		59.8
	Total	67	42,463	80	47.238	11.2	59.8

The increase in acreage is due to the large number of ditches which have never been recorded. This is a feature of every stream over which the surveys have been extended. These have been of sufficient extent to warrant the conclusion that there is now in Wyoming over two million acres of land under ditches and susceptible of being irrigated from them. That this land is not being irrigated is manifest to anyone who knows anything about the agricultural productions of the State. Two million acres of irrigated land would make 12,500 one hundred and sixty acre farms. The census report for 1890 shows the average value of farm products on lands cultivated in this State to be $8.25 per acre. The returns from the total acreage under ditch, if cultivated, would, in two years, more than equal the present assessed valuation of the State. That this is not the present condition of affairs is due to the enormous disparity between the acreage under ditch and the acreage under cultivation. According to the census report for 1890 only about ten per cent. of the land under ditch is irrigated and only about one per cent. of the land under ditch is cultivated, the census report showing that 229,000 acres were irrigated and a little over 20,000 acres devoted to the production of cereals.

TABLE NO. 3—CENSUS BULLETIN NO. 107.

Showing the acreage of land under cultivation and value of product.

COUNTIES.	Number of irrigators.	Total irrigated acreage in crop.	Average size of irrrigated farms in acres.	Average value of products per acre.
Total	1,917	229,676	119	$8.25
Albany	125	34,522	276	9.30
Carbon	272	39,869	147	6.83
Converse	72	6,890	96	6.72
Crook	59	3,027	51	10.15
Fremont	217	15,512	71	12.25
Johnson	278	28,106	101	7.97
Laramie	208	33,853	163	12.44
Natrona	43	5,547	129	(*a*)
Sheridan	294	29,722	101	6.94
Sweetwater	20	1,362	68	(*a*)
Uinta	324	30,918	95	6.09
Weston	5	348	70	7.59

TABLE NO. 4—CENSUS BULLETIN NO. 184.

PRODUCTION OF CEREALS.

	Barley,		Buckwheat.		Indian Corn.		Oats.		Rye.		Wheat.	
Counties	Acres.	Bushels.	Acrs.	Bush.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
Albany	1	40			6	110	395	12,005			6	127
Carbon	22	190	10	40	1	10	1,384	26,343			56	1,137
Converse	13	85					428	12,403	13	112	174	508
Crook	24	202	2	15	677	9,350	2,044	46,853	35	292	948	11,510
Fremont	46	1,042			8	160	2,050	48.083			1,094	17,066
Johnson	131	4,027			68	1,886	2,607	71,641	75	1,549	195	12,898
Laramie	6	50			1,052	9,021	989	23,012	18	102	39	730
Natrona							52	1,210				
Sheridan	243	6,127	8	85	165	4,635	4,310	138,506			1,257	26,279
Sweetwater							26	970				
Uinta							282	6,204			315	4,195
Weston							40	1,275				
Total	486	11,763	20	140	1,977	25,172	14,607	388,505	141	2,055	4,584	74,450

That this condition of affairs is alike unprofitable to ditch owners, and unsatisfactory to the State at large, cannot be questioned. Land below a ditch, if not watered, is worth no more than land above it. Canals, if not used, are better unbuilt. An idle or empty one means not only loss of income on the investment but the added expense of maintenance and repairs. It is equally manifest that some cause, or causes, besides the needs of settlers, has led to this multiplying of unused ditches. The disparity is too great to be due to the delay in reclamation which always follows construction.

That some peculiar conditions have attended the progress of agriculture in this State is shown by the fact that in 1890, Albany County, one of the leading counties in the State, either as regards the acreage under ditch or the demand for irrigated products, only grew six acres of wheat and three hundred and ninety-five acres of oats; that Carbon County with the stimulus of a home market in its mining camps, and the great opportunities of the upper Platte Valley, only grew fifty-six acres of wheat. Meanwhile the State is being drained of its revenues to purchase farm products which could be grown at home. The towns along the U. P. Railway, each year, purchase from Colorado, Utah and Nebraska over half a million dollars' worth of farm products.

The town of Douglas imports each year about $60,000 worth of flour, hay and grain, yet within fifteen miles of the town is enough land under ditch to produce this, and the North Platte river, with its annual discharge of ten thousand cubic feet per second, flows past the town. In water divisions 1 and 4, embracing the southern half of the State, there are recorded 2,143 ditches; 1,750,522 acres of land is claimed to be watered. The land is unsurpassed for the production of small grain and there is a high priced home market, yet there is not at this writing a single flour mill in operation in either of these divisions; nor is there enough of a single farm product grown to supply the home demand.

WHY THE LAND UNDER DITCH HAS NOT BEEN CULTIVATED

There are three principal causes for this one-sided progress. They are stated in the order of their importance.

1st. The craze for land which prevailed from 1882 to 1886 and which was greatly stimulated by the success attending the range cattle business. The Desert Land law offered the most convenient means of acquiring title to land, and hundreds of ditches were built for this purpose solely, by parties who had no intention, at the time, of cultivating the lands, but irrigated them in order to acquire title.

2nd. Lack of railway connection with the sections where agriculture is most important.

3rd. Attempts to secure possession of the public waters for speculative puposes.

In explanation of these it may be stated:—

1st. The first steps toward the reclamation of this State were not taken by farmers but by stockmen. The earlier ditches were not built by men who made the production of crops their principal business, but constructed ditches as an incident in the management of range stock in order to provide winter feed. Not only were the first ditches built under these conditions but also more than half of all the ditches in the State. The managers and owners of herds of range cattle recognized the future value and importance of the irrigable lands, and the Desert Land Act gave a ready means of acquiring title. In the more prosperous days of the cattle business, efforts to secure irrigable lands reached an enormous magnitude and the building of ditches was a necessary adjunct. That their reclamation would have followed rapidly, under favorable conditions, there can be no question. The work was interrupted by heavy losses in the cattle business and the delay in securing land titles. The expenses of reclamation also proved heavier than at first anticipated. Especially was it found that the building of ditches alone constituted but a small part of either the labor or cost of converting the sage brush plain into a productive farm.

The work of reclamation, thus interrupted, languished for a time but is now being revived. Much of the land, however, is being made to serve a higher purpose than at first proposed. Instead of becoming hay fields and pasture lands, it is being transformed into grain fields. It is contributing therefore more diretly to supply Wyoming's most pressing need, that of a home food supply.

2nd. Owing in part, to favoring conditions of soil and climate, but in a larger measure to the stimulus of a home market, provided by Forts Washakie and McKinney, agricultural settlements were established in Fremont, Sheridan and Johnson Counties at an early date. Each of these counties has marked natural advantages for farming under irrigation, but that they are the leading agricultural sections of the State is chiefly due to the fact that the first settlers were farmers. Agriculture was from the beginning their means of livelihood and only the limitations of the home market has prevented the further extension of the farmed area. The distance from railways has in each case prevented the marketing of the surplus and has restricted production. Ditch building has in these counties been extended, in anticipation of the improvement in transportation facilities, which, in the case of Johnson and Sheridan Counties, is at last realized. That the next two or three years will witness a marked increase in the area under cultivation in these two counties is assured.

3rd. A mistaken view of the territorial laws governing appropriations of water led to the building of a few ditches for speculative purposes. Believing that the only thing necessary to secure the control and ownership of a stream was to divert it from its natural channel, ditches have been built to effect such diversion. As the reclamation of the land covered by such ditches formed no part of the project, and as the sale or rental to users of the water diverted has not been a success, such ditches remain empty and the lands designed to be watered are yet arid and unproductive.

The foregoing explains the causes for the conditions disclosed by the census report. It has been written in response to criticism from home, and inquiries from abroad, and because it has a marked value in connection with the progress made during the past two years.

PROGRESS SINCE 1890.

If the agricultural growth of the State during the past two years was to be measured by the number of miles of ditches completed, or the amount of capital invested in irrigation works during that period, then the record would be far from satisfactory; but if the standard of comparison is the number of acres reclaimed and brought under cultivation, then the progress has been greater than during any similar period.

An examination of nearly the whole State during the past summer showed the increase in acreage farmed to be as surprising as it was gratifying. There are no statistics which will give the details of this extension of the farmed area but its importance to the State is suggested by the following facts:

In 1890 there were five flour mills in the State in operation; one, in the southern part, unused and practically abandoned. The mills in the north, having no outlet for surplus, could only supply the local demand. To-day, five mills are being operated and four more are in course of construction and all will be completed by January 1st, 1893. Three of these are in the southern part of the State.

The census for 1890 gave the area in wheat as 4,538 acres. In 1892, a careful investigation by the Superintendent of Water Division No. 4, showed that Uinta County alone had an equal acreage. In 1890, Converse County grew six acres of wheat; in 1892, 1,200 acres. The increase in Carbon County was from 56 acres in 1890 to over 1,000 in 1892. In the vicinity of Saratoga, three times this year's acreage has already been pledged for next season. The rate of increase in acreage has been equally great for oats; indeed, that of oats was probably greater. This crop has an immediate market, while the local market for wheat will not be assured until the mills, now in process of construction, are completed. Wheat has been chosen, simply because the statistics of its increase in some localities were at hand, and to show that the time, when Wyoming flour will be in as general use in the southern part of the State as it is now in the north, is not far distant.

LAND WHICH CAN BE RECLAIMED.— ITS LOCATION, CHARACTER AND EXTENT.

The estimates of the irrigable land in Wyoming have varied in the past from five to fifteen million acres; that of the Director of the Geological Survey being among the largest. The wide variation in estimates is due to the fact that the irrigable lands are scattered in isolated and irregular areas in every section of the State. A personal examination of all is practically impossible, and a correct estimate, even when based upon such examination, is, in many cases, hard to reach. It is yet too early to fix, with any certainty, the ultimate area of land to be irrigated. It will be greater if the general government extends some aid, than if it must be prosecuted under present conditions.

The limit will be determined by the available volume of water, and the economy with which it is used. As a rule there is no lack of land. The problem is to make the water cover as large a portion as possible. We can extend this by constructing large canals, or limit it by multiplying small ditches and thus increasing the loss by evaporation and seepage. Our rivers will water a great area, but it is yet an open question whether the land reclaimed will lie in this or neighboring States. If we use it first, we have secured it beyond question, but if the present inaction continues, its ownership may be lost through prior use by adjoining States.

The greater part of the two million acres, now under ditch, is situated in isolated tracts and along narrow valleys of small streams. The ditches which water these tracts are, as a rule, of limited size, both as regards capacity and length. But four canals of notable size have been constructed. Much of the land now under ditch is greatly inferior to that awaiting the building of ditches for its reclamation. We have been building cheap ditches rather than reclaiming the best land or utilizing the best sources for a perennial water supply.

The extension of irrigation by such methods has about reached its limit. Nearly all the small streams in the eastern half of the State have been fully appropriated. Many have more ditches diverting water than can be supplied. On practically all there is a shortage during the latter part of the irrigating season. Much water still runs to waste in April and May, but until storage works are constructed to conserve this, the limit of agricultural extension from small streams has been reached, so far as the eastern half of the State is concerned.

In the western half of the State there are still opportunities to irrigate small tracts, at a cost within the means of a single settler, but the principal extension of the irrigated area, in the future, must be made by means of large and expensive canals. The largest bodies of irrigable lands are in the valleys of the Platte, the Green, and the Big Horn. Both in their location and character these lands are the most desirable in the State, but their reclamation will require different methods and different conditions than those which have prevailed in the past.

The surveys of the Engineer's office, and the maps and estimates filed with "Applications for Permits" to appropriate water, have shown the location of some of the more extensive and desirable tracts which can be reclaimed. The value of this information to the home-seeker and capitalist warrants a brief review. No attempt has been made to include all the irrigable tracts, but simply those which have either been personally examined by the State Engineer, or which have been reported upon by engineers known to be competent and reliable.

WATER DIVISION NO. I.

The North Platte river is the principal stream of this division. Its valley varies in elevation from 4,000 feet, where it crosses the eastern boundary of the State, to nearly 8,000 feet, where it enters it on the southern boundary. Its maximum discharge is about 15,000 cubic feet per second; its minimum discharge about 700 cubic feet per second. As the maximum discharge occurs during the period of the greatest need, and the minimum discharge at the time when water is but little used for irrigation, it is capable of reclaiming an extensive tract of land. Unfortunately, the opportunities for using its waters within the State are somewhat restricted. Starting at the southern boundary of the State the following tracts have been made the subject of surveys and reports:

On the west side of the stream in Carbon County, about 25 miles north of the southern boundary, there is about fifteen thousand acres which can be watered by a canal from Grand Encampment creek, one of the principal tributaries of the Platte. On the east side of the river, in the same county and south of Pass creek, there is a table land of about 70,000 acres which it is possible to water from the Platte river, but it is questionable if the expense is warranted at the present time. A canal to water this land has been surveyed from Brush creek, but its construction has not yet been begun. From the crossing of the U. P. Railway to the mouth of the Sweetwater little land is adapted to irrigation, but from this point to below the town of Douglas there are several tracts, varying in extent from five to fifteen thousand acres, which can be watered at reasonable cost. These lands are destined in time to be extremely valuable, as the low elevation gives marked climatic advantages. A canal has been surveyed to water the uplands lying north and east of Casper. It contemplates the reclamation of over 250,000 acres at a cost of about two million dollars, and is the most important canal so far projected in the State.

Immediately adjoining the town of Douglas, and forming a part of the Fort Fetterman military reservation, is an excellent tract of irrigable land, comprising about 13,000 acres. A detailed survey of a canal to water this tract has been completed and shows the project to be feasible and that the cost is not excessive. There are several opportunities near the eastern boundary of the State for constructing canals to water from five to ten thousand acres each. Two of these have been surveyed and their construction may be looked for in the near future.

Little has been done to utilize the flow of Sweetwater river. The ditches already built are only being partially used, and so long as this condition of affairs prevails, but little new construction can be anticipated. A survey of a high line canal on the north side of the stream, and east of Devil's Gate, shows that about fifty sections can be reclaimed thereby.

The principal canals in this division, and the largest canals in the State, have been built to divert the waters of the Laramie river. None of these canals are being operated to their full capacity. Surveys have been made and permits granted for additional canals to water in the aggregate about 160,000 acres. When these are completed, it is altogether probable that the water of the stream will be fully exhausted. The other streams of this division offer little opportunity for the construction of works of any considerable magnitude or importance. On a few, there are yet opportunities for the construction of ditches of moderate size. Two ditches are surveyed from Rock Creek to water 20,000 acres of land, and several ditches of less size from Medicine Bow river, Deer creek and La Prele creek are projected.

WATER DIVISION NO. 2.

While this division has at present the largest area of land under cultivation of either of the four, it is not, as a whole, well watered. The streams in the southern and eastern portion are small and their volume is unstable; many of them become entirely dry during the latter part of the irrigating season. Throughout this portion of this division irrigation can never attain any considerable importance. The ditches already built divert all the water of the streams during three-fourths of the year, and the only material extension of the reclaimed area must come through the construction of reservoirs for the storage of storm and flood waters. The principal water supply of this division is in the northwestern portion, along the eastern bases of the Big Horn mountains. This section, while limited in extent, is well watered. The mountains, from which the streams flow, reach an elevation of over thirteen thousand feet and are snow-capped throughout the year. The streams which reach the summit of the range have a perennial water supply, but those which have their origin in the foot hills fluctuate greatly.

The irrigable lands of this section vary in elevation from 3,500 feet to 5,500 feet, which gives it a favorable climate for diversified agriculture. Fruit growing has made a promising beginning, while the production of small grain and vegetables has met with gratifying success.

At the present time considerable water runs to waste in all of the larger streams of this section; this is due to the fact that the ditches already built are not operated to their full capacity. When this is done, only two streams will have a surplus water supply; these are Powder and Tongue rivers. In both cases there is an opportunity for utilizing the surplus discharge.

A canal has been surveyed from Tongue river to water about 70,000 acres. The construction of this canal would prove a great factor in the advancement of the northern portion of the State. There is an ample water supply and the land is excellent. The estimated cost is $200,000. The great obstacle to the construction of ditches from Powder river is the destructive floods which prevail along the lower portion of the stream. The most feasible method of diverting its waters is by the construction of a canal, starting in the foot hills, to irrigate the land along the valley of Nine Mile creek. There have been no reliable estimates submitted as to the cost of this work, but I am informed that surveys have been made which show that it is feasible.

METHODS OF INCREASING THE AVAILABLE WATER SUPPLY OF THIS DIVISION.

Along the summit of the Big Horn range are numerous lakes, which are admirably situated for use as storage basins and which can be utilized for this purpose at small cost. Their value in furnishing a supplemental water supply for late irrigation, would be very great. It would serve both to increase the area farmed and give added assurance to the holders of prior claims.

There are also indications that artesian wells may be found in this region. It is certain that a large portion of the discharge of the mountain streams is lost through underground channels. The beds of these streams cut through strata of limestone of great thickness. The inclination of this strata is quite steep and the diminution in volume of the streams flowing over its up-turned edges is so marked as to be perceptible to the most casual observer. Whether the loss is due to percolation through seams in the rock, or whether more extensive channels have been formed by the continued passage of the water through such seams, is not definitely known, as no systematic investigation has as yet been made. A very limited examination of this section was made last summer, during a journey along the summit of the range across the headwaters of Tongue river. Owing to the great volume of water in the principal stream, no examination of the character of the bottom was possible, but on some of the smaller tributaries underground passages, fully six inches in diameter, were observed, and in two instances streams having volumes of two and three cubic feet per second disapeared within a few hundred yards. In low water the entire flow of Little Tongue river is absorbed through this action.

On the western slope of the mountain the strata is less steeply inclined, and streams which disappear on the summit re-appear near the base as gigantic springs. On the eastern side there is no known outlet for the water lost at higher elevation, but its volume makes it worthy of some effort for its recovery, and it is believed that this may be possible through the medium of artesian wells.

WATER DIVISION NO. 3.

This division is probably the best watered section of the arid region. It is almost wholly surrounded by lofty snow-capped mountains. The Wind river, Shoshone and Big Horn mountains form the boundaries on three sides of this division, and furnishes a perennial water supply fully adequate to the reclamation of two million acres.

The valley, popularly known as the the Big Horn Basin, is about the size of the State of Massachusetts. Its sheltered situation and low altitude, ranging from 3,600 to 5,500 feet, will probably make this the best section of the State for gardening and fruit growing.

The main drainage canal is the Big Horn river, the maximum discharge of which reaches 25,000 cubic feet per second. Other important streams are Wind river, No Wood, Grey Bull and Shoshone rivers. Along each of these streams are large areas of land which can be reclaimed if capital can be interested in the construction of the canals. In most cases the magnitude and cost of the required works is beyond the means of the individual settler, owing to the size of the stream and the extent of land which should be covered by a single canal to secure the greatest economy in the distribution ot water. Several important canals have been surveyed during the past two years; one, to divert the water of Grey Bull river, covers 170,000 acres and several others cover from five to fifteen thousand acres. There are opportunities for large works and for the reclamation of very extensive tracts of superior land on Wind river, at several places along the Big Horn river, on Grey Bull river in the vicinity of the town of Otto, and on the lower portion of the Shoshone river. There are opportunities for smaller canals on Shell creek, Paint Rock, and some of the tributaries of Grey Bull river. At the present time the valley is almost uninhabited and the development of its resources has hardly begun. It is questionable if the entire valley, outside of Lander and the adjacent country, contains one thousand people. There is a thriving agricultural district in the valley of the Popoagie river, which forms the headwaters of the Big Horn. In 1890 Fremont county ranked third in the production of cereals. When the natural advantages of this region are utilized, this county will take still higher rank.

WATER DIVISION NO. 4.

The principal streams of this division are Green river, Bear river and Snake river. It is an elevated region, no portion of it being less than 6,000 feet above sea level, while the extensive plateaus at the head of Green river and the valleys at the head of Snake river have an average elevation of over 8,000 feet. As a whole the division is well watered, the exception being the eastern portion, known as the Red Desert. During the past two years this division has made marked progress, both in settlement and in the increased area brought under cultivation,—the valleys bordering Bear river, Salt river and Black's Fork creek being the localities most benefited. Several extensive works are now in progress of construction, or in a condition which promises an early beginning of construction. The Black's Fork canal on Black's Fork creek, which waters about 15,000 acres of land, has been nearly completed and surveys have been made for two others from this stream, the aggregate area watered being almost 100,000 acres. The surveys of canals from Bear river show that fully 30,000 acres can be added to the irrigated territory on that stream, and a survey just completed on Green river includes nearly 300,000 acres beneath the line of the proposed work from that stream. There are also favorable opportunities for constructing ditches to divert the water of Ham's Fork, Henry's Fork and the upper tributaries of Green river, but the latter locality is too elevated for general agriculture, the productions being restricted to hay, oats and the hardier vegetables.

LAND LAWS FOR THE ARID REGION.

Objection to the Present Land System. Reasons for Favoring State Ownership of the Public Lands. Disposal of Irrigable Lands and Grazing Lands.

From the foregoing brief and incomplete description of some of the opportunities for extending the irrigation area, it will be seen that the slow progress of the State in securing settlers is not due to lack of material resources. Few of the arid States have as great an area of irrigable land and none a more abundant supply of water. Their union would transform the appearance and financial condition of the State. The land below ditches built, and below the lines of completed surveys of canals, would, if cultivated, produce an annual return worth more than the present assessed value of the State. That such a consummation is to be desired will scarcely be questioned. That there is an assured certainty of equal progress in any other direction is not known. It would seem, therefore, that the means by which such development may be secured is worthy of careful consideration and calm discussion by all who have an interest in the welfare and prosperity of the State. The present rate of progress is unsatisfactory. The public lands are not being occupied by settlers, nor is capital investing money in works to reclaim them. That there is some reason for this cannot be doubted, and that it is found outside of the character of the material resources of the

State must be the conviction of any one who carefully studies the situation. What, then, is the reason of this delay in development? The explanation is found first in the continued predominance of the range industries which causes many, who would otherwise give their attention to the development of our agricultural interests, to devote themselves to the utilization of the free grazing lands; but by far the most important reason is found in the unsatisfactory condition of the land laws. So long as these remain in force, canals to water the valleys of the Platte, Tongue and Big Horn rivers will not be built, nor will settlers be found to make them productive. The reason for this is simple; the cost of canals to water these lands is beyond the means of the individual settler; colonization is out of the question because the canals must be built before settlers can occupy the land or sustain themselves and their families. Capital cannot be induced to undertake the work because there is no security for the money required, and because nine out of every ten ditches, constructed by capital to water public lands, have proven financial failures. It is a short story but it is complete.

In making these statements no injury is being done to the State. The facts are well understood; that the Homestead law means something entirely different in Wyoming from what it did on the prairies of Iowa and Kansas is conclusively shown by the fact that, while there has been a constant procession of home seekers crossing this State for the humid sections of Oregon and Washington, none have stopped with us.

The opening of a reservation in Oklahoma to homesteaders brings settlers from every State in the Union; the opening of one in the Platte Valley does not attract a single settler. This is not because the land in Wyoming is worthless. The plateau at Fort Fetterman, if irrigated, would be unsurpassed for productiveness, and the crops, when grown, would command a higher price than those of the agricultural States to the east. It is not occupied, because, as a rule, the pioneer is a poor man; the diversion of a great river is an undertaking he cannot compass. Until this is done the land has no value except for a grave, and is not attractive for that.

Before the small streams were occupied there was an opportunity for the individual to secure a home. The rivulet, winding its way from the foot hills, was the poor man's opportunity. It requires no engineering skill, no head gates or expensive structures to divert and use its waters. From the necessities of the case the opportunities which such streams presented have been the first to be utilized, and they have now been practically all absorbed. The lands, so reclaimed, are not the best lands and there are many features about the pioneer life in such localities that are not attractive. The isolation of the settler and his family is inevitable, and the remoteness of markets, schools and society are not conducive to either the most profitable or satisfactory form of agriculture. The best homes in the State will, in time, be found in the larger valleys—on the lands which now remain unoccupied.

Since the reclamation of these lands is beyond the means of the settler, capital must be induced to come to his aid. That it has not done so is simply because the conditions render it unprofitable. This is manifest to any one who has given any attention to this subject, or soon becomes so if an endeavor is made to secure funds for such work. During the past two years a number of attempts have been made by public spirited citizens of the State to secure capital for the construction of irrigating works. The first question asked is, what is the security for the return of the investment? The land to be reclaimed belongs to the general government; it cannot be pledged. The water which the canal will divert has no value unless users therefor can be had. These are not on the ground. There is the uncertainty as to the land being occupied after the canal is built, and, if occupied, whether it will be by actual farmers and users of water, or absorbed in speculative holdings. It is the danger of the latter which prevents the building of canals to water public lands. Under the Homestead law it is not necessary for a settler under a canal to be a user of water. The expenditure for constructing the canal, and the occupancy and settlement of a portion of the area which it is intended to water, greatly enhances the value of the remaining portion and this offers a tempting field for parties who are not farmers and who have no intention of becoming such, to secure the land under the operations of the Homestead law and receive the returns of its increased value which comes from the expenditure and efforts of others. The financial success of the canal depends on *all* the land being used. If half is absorbed in speculative filings it becomes a financial failure. That such a result will follow the building of canals to water government land is not only probable, but the experience of companies, which have attempted it, shows that it does follow, and this fact is now generally understood.

To make canal building, to water public land, a safe investment, the settlement of the lands to be irrigated must be restricted so that only actual cultivators of the soil and users of water may occupy them. To secure such result will require a homestead law radically different from the one now on the statutes.

THE DESERT LAND LAW.

The Desert Land law was ostensibly framed to aid reclamation. However meritorious the objects of its promoters, its operation in this State has failed to secure this end. It is radically wrong in principle and it is questionable if the benefits which have accrued have equalled the injuries it has inflicted. As originally enacted, it increased the allotment to the individual from 160 acres to 640. If the purpose of land laws is to provide homes for the homeless, it is difficult to understand the argument in favor of this increase. The obstacle to settlement in the arid region is the outlay required to reclaim the smaller area, and how this was to be overcome by increasing this four times is a problem yet awaiting solution. The law is a convenience and benefit to the man of means because of the greater ease with which title to valuable land can be acquired. The operation of this law has been to make acquirement of land the object and end of ditch construction, and has obscured the important considerations of the economical use of the water supply, or its use on the best land. The increased acreage given to the individual, instead of aiding the poor man, has, on the contrary, lessened his chances, by enabling men of means to more rapidly utilize and absorb the lands which could be reclaimed at small cost. It has been the principal cause for the agricultural condition of this State, disclosed by the 11th census—two million acres under ditch and twenty thousand under cultivation.

STATE LANDS.

In many States the lands donated by the government to the State have been made a powerful aid in their reclamation. This has been especially true of the State of Colorado, where the lands given to the State by the general government have been an effective instrument in securing the construction of canals for their reclamation, a portion of the lands being given outright, or sold for a nominal sum, to secure the irrigation of the remainder. Whatever the object sought to be gained by attaching a condition that lands should not be sold for less than ten dollars per acre, the present effect of that condition is to render those lands of no value to that State as an aid to settlement or agricultural development. The selection of these lands in a location where irrigation is possible means simply to withdraw such lands from private ownership, because no one is willing to incur the expense of reclaiming State lands, and no one can afford to reclaim such lands and in addition pay the excessive price at which they must be sold. To have made this donation valuable to the State, only one condition should have been enacted, that the lands should be reclaimed before the State granted title to them, leaving it to the State to give such lands away, if necessary, to secure reclamation.

It is largely because of the results of national land legislation that the writer favors the transfer of the public lands to the State. Because we have laws which are an obtacle to settlement in this State, and which promises to continue, so long as they remain in force. It is also believed that the domain embraced in the arid region is too vast, and the conditions too diverse, to admit of a successful administration under one general law, and by an officer 3,000 miles away. The environment of Washington is not favorable to a proper appreciation of the conditions of this region, or a correct solution of its difficulties. There is no fact better established in human experience than the utter inability of man to understand the condition of a country he has never seen, and no matter how great the intelligence of an official in the east or how sincere his desire to properly perform his duties, if his experience has been confined to that section, he cannot deal wisely and fairly with the problems of this. A State officer would have the inestimable advantage of an intimate acquaintance with the physical facts. Two-thirds of the trouble which the people of the west have experienced in obtaining land patents has been due to the inability of the officials in Washington to understand the requirements of this country. The whole history of land legislation for the past ten years has shown the uncertainty which exists in the minds of the national legislature as to the needs of this section and the proper means of satisfying them, and that the transfer to the State would be to hand over their control to the highest intelligence which could possibly be called to deal with the problem—the people who now occupy them and those who are to occupy them.

There is a further reason for favoring State control of lands. Both land and water are essential to successful agriculture and their management and disposal should be under one authority, either state or national. The general government has relegated the control of the water to the arid States, in some instances by special grant, as in Wyoming; in others, by omission to take any action until the State was forced to assume control. By reason of this, rights to water of great pecuniary value have been created. The nature of these rights differs in different States, according to the character of State laws or local customs. To transfer the management of these to the general government, and to substitute for these diverse systems a different and uniform one, would work untold disturbance and financial loss. Meanwhile, States enact laws for the disposal of water, and the general government passes laws, which, by implication at least, conflict therewith. The provision of the Desert Land law, and the law withdrawing reservoir sites from occupation, and the law (since repealed) withdrawing all irrigable lands from entry, are familiar illustrations. There is also much useless expenditure and wasted effort. In a measure the work of the State and national government duplicate each other, as, for instance, in making proof of the use of water to obtain a certificate of appropriation from the State, and making the same proof to obtain a patent to the desert land.

OBJECTIONS TO CESSION.

That the majority of the people of Wyoming are opposed to the State assuming control of the public lands is not to be doubted, nor that the opposition is both aggressive and honest. The basis of this opposition is the general distrust of the honesty and capacity of a State legislature. No one questions the value of the grant, nor that the State would be greatly benefited by the cession, if the donation was honestly administered. The objection is founded on the belief that the temptation to squander this donation would be too great for the rectitude of the State's law makers, and that the lands, instead of being made an instrument for the increase in population and wealth of the State, would become the spoil of adventurers and corporations. There are two reasons for believing that such apprehensions are not justified. So low an estimate of the State's public servants is not warranted by past experience; the construction of public buildings and the care and management of public funds have so far been attended to—not only with honesty but with wisdom and economy. Whatever may have been the history of similar grants to other States, the interest in this question is too intense, and its importance too well understood, to render the mismanagement of the trust at all probable.

LAWS TO PROMOTE IRRIGATION.

Whatever may be the views entertained as to the expediency of cession, all are in favor of the extension of irrigation, and nearly all are in favor of the extension of aid in some form. Of the different methods proposed, only those which contemplate the prosecution of such work by private enterprise will be considered. There is no reason to expect direct appropriations from the national treasury, and, if begun, would be a disaster instead of a benefit. Private enterprise would withdraw from the field and the progress of the State be governed by the condition of the national treasury. Happily such aid is not required. The resources of the State are ample if only made available. The farmer, who is to use the land and water, can pay for them, if given the opportunity to use them. All that is needed is laws which will invite capital to build ditches and protect the farmer by making water monopolies impossible.

IRRIGABLE LANDS.

The first step is to secure the building of ditches. These should be provided for by making the land, to be reclaimed, security for the money expended in their construction. Make the cost of the ditch a first lien on the land which it waters; this will give absolute security for the money invested and lessen the cost of water to the farmer, since the rate of profit is always commensurate to the extent of the risk.

The tranfer of title from the government should be only on one condition—the reclamation of the land; this to apply to lands occupied by settlers, or lands subject to foreclosure under the lien of the canal builder. Land and water should be united. The control and ownership of ditches should pass with the title to the land. Every settler on public land, under a ditch, should be required to assume his proportionate share of the cost of its construction and operation, and on the payment of this should become a stockholder and part owner therein. Under such a system the formation of water companies would be avoided. There would only be construction companies, which would have no claim of ownership to the water, but would construct the channel for its conveyance for a specified sum, secured by lien on the land benefited and to be paid by the settlers.

It is believed that the plan proposed will be an attractive one to investors and canal builders. If settlers occupy the land, they are assured of the return of their investment and compensation for the work performed. If not, they become the owners of the land. There is scarcely any irrigable land which would not be worth far more than the cost of reclamation. The average cost of water in this State, according to the census of 1890, is $3.62 per acre.

The average for the arid region, $8.15. The average cost for all large canals surveyed in this State would not exceed the latter sum. The average value of water rights throughout the arid region is $26.00 per acre, and the average value of irrigated land $83.28 per acre. The present value of both irrigated land and of water rights is lower in Wyoming than in any other state or territory, but this is due to the fact that the land to be watered at *least* cost, rather than the best lands, have heretofore been selected. The lands now under discussion are among the best in the State, and the conditions far more favorable for profitable agriculture than prevail in three-fourths of the land now under ditches. The land will be adequate security for the capital required to reclaim it, and, wherever it can be made the basis of credit, these ditches are being built and will continue to be built.

The plan would be equally attractive to the home-seeker. He would secure his land and water at the least cost, and his settlement would be effected with the least possible hardship.

Instead of the best land in the State being absolutely removed from his consideration, a home thereon would be a possibility to any one. If the lands were given as homesteads the average cost of land and water would not exceed ten dollars per acre. There would be no trouble in paying this, since the average value of irrigated products as shown by the census of 1890 is $14.89 per acre. Even if the cost of the canal was in excess of the estimate before given it would only be necessary to have the payments extend over a period of years to enable any one, possessed of ordinary industry and thrift, to make for himself a home.

The sale of the canal to the farmers, and the transfer of its management to their hands, would not only provide a water supply at a reasonable first cost; it would insure its economical management thereafter and relieve them from the annoyance and exactions so frequently experienced where canals are owned and managed by others than the users of its water.

The experience of the arid States shows, with scarcely an exception, that canals owned and operated by the farmers living below them are operated at far less cost than are canals owned and operated by water companies. Under the one system controversies are of rare occurrence and litigation is almost unknown, while under the other there is a direct conflict of interest; the farmer desiring the greatest possible supply at the least cost, while the canal company is subject to the constant temptation to raise the rates and wring from the user all that the returns from his labor will permit. This is not alone the experience of the arid states of this country; the history of older irrigation states is equally emphatic as to the danger of placing the use and control of the water supply in separate hands.

The system proposed makes all rights to water for irrigation inhere in the land on which it is used. Water rights would go with land titles and no inducement or opportunity be extended to the formation of companies to secure control of streams. The evils attendant upon the separation of land and water are too serious to be disregarded. If water is to become property, and if parties are to secure vested rights in streams. independant of the locality and manner of its use, there will come of it monopolies which will in time prove an intolerable burden on the people.

Land in the arid region has no value without water; whoever controls the latter holds the key to its agricultural wealth. There is no independence or safety for the farmer under such a system. No monopoly of land offers opportunities for exactions and abuses that are afforded by monopolies of water. The fertility and productiveness of the land depend thereon.

In the multitude of problems presented to a new State, an economic question like this is apt to be overlooked. In the haste for material development its importance is apt to be disregarded. The tendency is to welcome every investor as a benefactor and to give no heed to the ultimate consequences. In many of the arid states the waters are already in the hands of companies. The courts recognize it as a form of property independent of land, and the abuses attendant thereon are being made manifest.

The system proposed would require a considerable measure of governmental supervision. The plans of ditch companies should be made subject to the examination and approval of engineers in the employ of the State, and the price and terms on which the ditch would be sold to settlers under it be fixed in advance. The expense to the State would not be much greater than is involved in the present haphazard development. It would mean inspection before, as well as after, construction, but in providing for the first the expense of the latter would be greatly lessened. Under such supervision, the gridiron of ditches shown on atlas sheets 27 and 28, included in this report, with all the useless expense in construction and waste of water in use, could hardly occur.

GRAZING LAND.

Only a small portion of the State can be irrigated; another fraction is valuable for its minerals, but by far the greater part can only be utilized for pasturage purposes.

As yet no laws have been enacted for the disposal or control of the grazing lands. They are occupied in common by all who desire to utilize them but principally by the owners of range herds of cattle and flocks of sheep. While in the past the range cattle business has been enormously profitable, and while the growing of sheep is so at present, it is almost inevitable that increase in population will make it necessary for a change in the methods which have hitherto prevailed. So long as there was more land than was occupied there was no question of the success of the open range industries, but with the increase in numbers of those desiring to utilize it, has come injury to the range, heavy losses of cattle and the almost inevitable certainty of neighborhood controversies for its possession and control. The conditions which now prevail offer no inducement to protect the native grasses. On the contrary there is a constant incentive to secure present benefits without regard to future results.

The best results to the State would come from the union of the irrigable and pasture lands. There are large areas of irrigable land which can only be reclaimed with profit through the union of farming and stock raising. Such lands are the valleys of small streams, lands watered from springs in the foot hills or from natural or artificial reservoirs on the plains. These lands cannot be farmed as can the valleys of large streams. To attempt to cultivate them, to grow grain or vegetables for market, as is done with the valleys surrounding Salt Lake or Denver, and as can be done with the irrigable lands along the Platte, Green and Big Horn rivers, is out of the question. There are no transportation facilities; the markets are too far removed and the areas are too small to create centers of trade. Many are of an elevation which restricts production to the hardier crops and all are limited to the growth of those which can be profitably consumed at home.

With all these limitations, these lands are valuable, and this is largely because of their isolation and their remoteness from lines of transportation and from other bodies of cultivated land. They furnish the winter's food supply for the herds which feed in summer on the surrounding grazing lands. They are the insurance against losses by storms. So long as range rights were regarded and the settler on the irrigated lands could pasture his cattle on the contiguous grazing lands, they formed a valuable adjunct to the range cattle business. Range rights, however, are practically a thing of the past. The homesteader, with his small tract of irrigable land and his fifty or one hundred head of cattle on the outside free grazing land, has no assurance that a roving herd of cattle, or flock of sheep to the number of thousands, may not be driven on his range. In a few days the grass is eaten off and the range herd moves on. The homesteader cannot follow his example; his farm makes him a fixture; he must stay with it, and as for his stock on the open range it must either be sold or fed from the products of his irrigated land Either plan is ruinous. It was the grazing land which furnished the element of profit, while the irrigable land gave the security. Together they will add greatly to the agricultural wealth of the State; separated, there will be no growth over the present. One of two things must happen; either the small farmer who has combined farming and stock raising must give up, or he must be placed in a position to control the contiguous grazing land.

As a remedy for this condition of affairs it is suggested that to each settler having 160 acres of irrigated land there be added four sections of grazing land, and that 160 acres of irrigable land and four sections of grazing land constitute a homestead for future settlers. This would furnish pasturage for over 100 head of cattle, or sufficient to consume in winter the products of the irrigated lands, the grazing land to be contiguous to the irrigable land, or as nearly so as possible. In many sections the areas designated would be too small but would be a marked improvement over nothing. It would afford immediate relief to the unfavorable conditions which now prevail in many sections and would offer an attractive inducement to new settlers.

Such disposition of the grazing lands would undoubtedly be open to some criticism, but there would also be much in its favor. It would divide the grazing land into small holdings; it would transfer them to the people most deserving and who could utilize them to the best advantage. It would work no violent change from present conditions since there would still remain large areas undisposed of, which could be utilized as at present.

OPERATION OF THE ENGINEER'S OFFICE IN 1891-92.

Abstract of Claims to Water. Recording Water Right Statements. Permits to Appropriate Water. Certificates of Appropriation. Preparation of Maps of Ditches Surveyed. Surveys of Streams and Ditches. Stream Guagings. Daily Record of Stream Discharges.

The present law revolutionized the character of the Engineer's office. Under the territorial law there was a large field for labor, but little authority or responsibility. So far as the supervision of public water is concerned, the State law makes it an office of almost undivided responsibility. It also greatly increases the routine work to be performed. The making of it an office of record for appropriations of water, the surveys of ditches and the participation of the State Engineer in the determination of water rights are illustrations of the increased labors and responsibilities imposed.

OFFICE WORK.—PREPARATION OF ABSTRACTS OF CLAIMS TO WATER.

The records of all claims to water, heretofore recorded in the county clerk's offices of the various counties, were transferred to this office in 1891, and it became the duty of the Engineer to examine and re-arrange these, in order to ascertain the extent of the claims against each particular stream. Prior to the performance of this labor there was no direct means of ascertaining the extent of the claims against a great many streams, owing to there being no central office of record and the fact that many of them flow through several counties. The claims against the Platte river, for example, were scattered through the records of four counties; those against Green river through the records of two. There was a further complication from the fact that the same claim was often recorded in several counties. It was necessary that there be an entire change in this method of keeping the records of appropriation. If the State Engineer is to pass upon applications for further appropriations from a stream, it is first of all necessary that he should know the extent of the claims already in existence and that these claims should be in such condition as to be readily examined. While the statements recorded are not a reliable guide so long as they remain the only aid, it is necessary that they be available. As an aid to this, an abstract has been prepared of the claims in each water division, the claims against any particular source of supply being grouped together. In these abstracts the claims against the main stream are given first; afterwards, the claims against tributaries, beginning with those at the head of the stream and following in succession down, throughout its course. The arrangement of the claims against any particular stream is, as far as possible, in order of their priority. The abstract of Water Division No. 1 begins with the claims to the water of the Platte river; afterward, the claims against each of its tributaries in succession down the stream were given.

In Water division No. 2 the first claims in the abstract are those to the water of the streams in the northwestern corner of the division, afterwards, the streams in succession to the eastward were taken up until the northeast corner of the State is reached, when the streams crossing the eastern border are taken in succession southward. In Water Division No. 3 the claims against the Big Horn river are given first; afterwards, the claims against its tributaries beginning with Popo Agie. In Water Division No. 4 the first stream is the Green river and its tributaries, followed by Bear river and its tributaries and Snake river and its tributaries.

The examination and arrangement of these claims was tedious and difficult. The duplication of the same statement in the records of different counties, and the recording of claims against the same stream in several counties, made their compilation and arrangement a matter of great care and occupied considerable time. As an illustration, it may be stated that practically all of the claims to water for Laramie, Converse and Weston counties were at first recorded in Laramie county, and afterwards, in part, recorded in the other counties. This was owing to the original boundaries of Water Division No. 1.

There was another complication in the records of partnership ditches. In many instances each partner had recorded a claim for the full appropriation, and, frequently, had given the ditch a different name. The aggregate of these claims would often appear as though there were a half dozen ditches and an enormous volume of water diverted, when, in reality, it was simply the individual statements describing a partnership ditch and claiming the full volume of the combined appropriation. One ditch of this character was recorded ten times under four different names, yet a subsequent survey of the stream has shown that it has never been completed, nor any water used.

Since the completion of these abstracts they have been in constant use. Not only have they been of service to this office and to the Division Superintendents, but they are being made use of by loan companies and intending purchasers of farm lands, and by many appropriators desiring all the attainable information as to the value of their claims.

RECORDING OF WATER RIGHT STATEMENTS.

Under the territorial law any intending appropriator of water was required to file in the County Clerk's office a statement of claim, within sixty days after beginning work. If this law had been complied with, all claims to water, of ditches constructed while it was in force, would have been a matter of record when the present law went into effect. Hence, no provision was made in the State law for recording of claims for ditches built prior to its enactment. They began to be received, however, immediately after this was made the office of record and it soon became a perplexing problem what to do with them. At first it was decided to file them without charge to the party sending them in, but soon requests were made for their return and it became manifest that they must either be recorded or rejected until additional legislation was had. As their rejection would subject many claimants to serious inconvenience and possible loss, they have been recorded. It was evident, however, that the labor involved, which had not been anticipated in the appropriation for the office, would make a demand for assistance which the appropriation would not meet, and it was decided to charge a fee sufficient to cover this expense; this fee was fixed at $1.00 and the money thus received has been expended in paying for extra clerical help and in defraying the incidental expenses of the office.

APPLICATIONS FOR PERMITS TO APPROPRIATE WATER.

All persons desiring to appropriate water are required, before beginning its diversion, to secure a permit for the same from the State Engineer, the method of procedure being defined in Sec. 34, Chap. 8, Session Laws of 1890. It requires the State Engineer to furnish a blank for the application, which is to be filled out by the intending appropriator and returned to his office. It is then the duty of the State Engineer to examine this application and to ascertain if it states all the facts required to determine its character and if the proposed use is a beneficial one and not detrimental to public welfare. If it complies with these conditions it is his duty to approve the same, fixing the limit as to the amount of the appropriation and the date when the same must be completed. On the approval of the application the appropriator must file, within six months from the date of such approval, a plat of the proposed ditch and the lands to be reclaimed, on a scale not less than two inches to the mile.

The engineer is required to refuse permits on streams where there is no unappropriated water, or where the character or location of the proposed diversion would make it detrimental to public interest. Where permits are refused, the applicant has the right of appeal to the Board of Control.

The superiority of this method of procedure over the former method of recording claims has been marked. The preliminary examination prevents the records being cumbered by incomplete or imperfect statements. Although a blank, on which to make this application, is furnished by the office, nearly one-half of those received have to be returned for corrections. The rejection of excessive claims or their dimunition, by the engineer, has been a most effective educator and has forestalled numerous neighborhood controversies which were certain to arise under the unrestricted diversion heretofore permitted. So long as there was no examination of the statement filed, appropriators of a small volume of water would record claims to the entire stream, under the belief that they secured the right to the full amount of their claim; and, believing this, there was a natural disposition to prevent, if possible, the use of any part of this by others. Under the present law the appropriator is restricted, in the permit, to the amount actually used within the time designated, and in this way all claim to the ownership of water for speculative purposes is averted.

The present law is destined to be a great aid in the construction of extensive canals. Such canals require a considerable period for their construction and an additional time after completion in which to apply the water to the intended use. Under the old law there was no security that smaller works would not divert and utilize a considerable portion of the water supply before the more extensive project could be brought into service. This is not possible under the present law. An approved permit is a guaranty from the State of the following facts:

(*a*) That the engineer believes there is an adequate water supply.

(*b*) That if the conditions of the approval are complied with, no question can arise as to the date or amount of the appropriation.

(*c*) That within the period fixed for the completion of the appropriation other appropriators will not be permitted to divert and absorb the water supply, and that a limit will be placed on subsequent appropriations, thus obviating future conflicts with the owners of ditches for which there is no water.

The examination of applications during the past two years has been made under very unsatisfactory conditions. The uncertain and unreliable character of the early records has, in many instances, made it impossible for the engineer to determine the amount of water appropriated from streams. There is a lack of stream gaugings in parts of the State and the present law has not been in force long enough to enable either the engineer, the division superintendent or water commissioner to become fully informed as to the available water supply. Every year will, of course, increase the information in the office and enable the work to be performed with more efficiency; but to secure the best results there should be an additional safeguard inserted in the law. Notice of all applications should be published in some newspaper in the county in which the proposed appropriation is to be made. This would enable adverse interests to be heard when the engineer considers such applications. The desirability of this has been made apparent several times; protests against the approval of applications, and giving good reasons in support thereof, have been filed months after they had been favorably considered.

From January 1st, 1891, to November 1st, 1892, there have been recorded 371 applications for appropriations for new ditches and 26 applications for enlargements of old ones. Eighteen of these applications have been refused, either because of insufficient water supply, or interference with prior claims; 31 have been cancelled, because of failure of parties to file plats, or because of notice of abandonment of the project. About 40 of these appropriations have been completed and are now awaiting the issuance of certificates by the Board. The further details of these applications are shown in table No. 1 of the Appendix.

PLATS FILED WITH APPLICATIONS.

The description of the route of canals, as given in applications for permits to appropriate water, is somewhat indefinite, as only the sections crossed by the line of said ditch or canal are required to be stated. The law contemplates that the plat filed with approved permits will show accurately the location of such ditch and of the lands intended to be irrigated. It is necessary, therefore, that these plats be prepared with some care, in order to show clearly and accurately the facts required in the issuance of a certificate of appropriation. Considerable difficulty has been experienced in securing satisfactory plats. There has been a tendency to neglect the preparation of any plats whatever, and some of those sent in have been so poorly drawn as to possess little value. In some cases it is difficult for appropriators to prepare a satisfactory map of their ditches, as it is practically impossible to obtain the assistance of a competent surveyor in their preparation.

As an aid to appropriators so situated, and a means of improving plats filed in this office, it is proposed to furnish, hereafter, with all blank applications for permits, a township plat, and to require all ditches which can be placed on such plats, to be drawn thereon. Those which are too large to be so drawn, must, hereafter, be prepared on tracing linen.

MAPS OF SURVEYS.

Maps have been prepared of the surveys of ditches made by the engineer and his assistant during the past two years. These maps are designed to form a part of the evidence before the Board in the determination of rights to water, and to aid the division superintendents and water commissioners in the performance of their duties. They are drawn on a scale of two inches to the mile, on atlas sheets 28x36 inches, each sheet containing six townships. Thirty-six sheets have been completed to date.

To illustrate the character of the irrigation works of the State and to show the nature of the surveys made by this office, atlas sheets 1, 2 and 3 have been reduced and are shown as the map of the ditches diverting water from the Little Laramie river. There are, in all, 150 ditches taking water from this stream. A reduced copy of atlas sheet No. 21 shows the ditches taking water from Little Goose creek, while the map of the Popo Agie is a reduced copy of atlas sheets 27 and 28.

The funds of the office would not permit the printing of the remainder, which is greatly regretted, as it is believed that they would have not only been of interest to owners of ditches but to all wishing to be informed of the extent and character of the State's agriculture. A list of the maps completed is given below.

ATLAS SHEETS

Showing Ditches Surveyed by the State Engineer in 1891 and 1892.

No. of Map.	No. of water division.	Name of Stream.
1	1	Little Laramie and Tributaries.
2	1	Four Mile, Dutton and Cooper Creeks.
3	1	Little Laramie and Tributaries.
4 and 5	1	Little Laramie River and Tributaries.
6 and 7	1	Pass Creek and Tributaries.
8 and 9	1	North Platte River and Tributaries.
10	1	Jack and Spring Creeks.
11	1	Grand Encampment Creek.
12, 13, 14 and 15	1	Chugwater Creek and Tributaries.
16	1	Lone Tree Creek and Tributaries.
17 and 18	1	Lodge Pole Creek.
19	1	Bates Creek and Tributaries.
20	2	Rock Creek and Tributaries.
21	2	Big and Little Goose Creeks.
22 and 23	2	Tongue River and Tributaries.
24	2	Big Goose Creek and Tributaries.
25	4	Fontenelle and La Barge Creeks.
26	2	South Beaver Creek.
27	3	Popo Agie River and Tributaries.
28	3	Middle Fork Popo Agie, Little Popo Agie River and Tributaries.
29	3	Beaver and Twin Creeks and Tributaries.
30	1	Snake River and Tributaries.
31 and 32	1	Muddy and Separation Creeks and Tributaries.
33	3	Little Popo Agie River and Tributaries.
34	1	Horsseshoe Creek.
35	1	Muddy, Dry Muddy and Claud Creeks.
36	1	Elkhorn, Garden, Squaw and Loomis Creeks.

FIELD WORK.

Surveys of Ditches. Stream Guagings.

Section 24, Chapter 8, Session Laws 1890–1891, requiring the surveys of ditches as a part of the evidence in the determination of rights to water, reads as follows:

> "It shall be the duty of the State Engineer, or some qualified assistant, to proceed, at the time specified in the notice, to the parties on said stream to be adjudicated, to make an examination of said stream and the works of diverting water therefrom, said examination to include the measurement of discharge of said stream and of the carrying capacity of the various ditches and canals diverting water therefrom; an examination of the irrigated lands and an approximate measurement of the lands irrigated, or susceptible of irrigation, from the various ditches and canals, which said observations and measurements shall be reduced to writing and made a matter of record in his office, and it shall be the duty of the State Engineer to make, or cause to be made, a map or plat, on a scale of not less than one inch to the mile, showing with substantial accuracy the course of said stream, the location of each ditch or canal diverting water therefrom, and the legal subdivisions of lands which have been irrigated, or which are susceptible of irrigation, from the ditches and canals already constructed."

All other field work has been subordinated to the prosecution of these surveys, which have consumed all the available time of the engineer and absorbed the greater part of the appropriation for the office.

They were begun in May, 1891, two parties entering the field at the same time; the first, beginning the surveys of ditches diverting water from Little Laramie river in Albany county; and the second, those diverting the water of Little Goose creek in Sheridan county. The surveys in southern Wyoming were extended to include the tributaries of the North Platte river south of the U. P. Railway, Chugwater creek, Lodge Pole creek, Lone Tree creek, Bates creek and a number of smaller streams on the Laramie plains. The surveys of northern Wyoming embraced the ditches taking water from Goose creek and tributaries, Rock creek, (a tributary of Clear creek,) Tongue river and tributaries, and the various tributaries of the Little Big Horn river in Sheridan county. On the completion of these, surveys were also made in Water Division No. 4 of the ditches taking water from Slate creek, Fontenelle creek, La Barge creek and Dry Piney creek, all in Uinta county. The total length of ditches surveyed was over 1,200 miles. This was accomplished with an appropriation of only $1,500 for salary of assistants, and a like amount for contingent expenses. When it is considered that this appropriation had to cover the office expenses, as well as the expenses of the work in the field, the smallness of the expenditure and the economy and efficiency of the assistants can be appreciated. The appropriation did not, however, cover the entire outlay of the office; it was reinforced by the fees received in recording the statements of claims, and by the preparation of maps for parties interested in the surveys.

In 1892 surveys were made of the ditches taking water from Popo Agie river and tributaries in Fremont county, Little Snake river, Savery creek, Muddy creek and Separation creek in Carbon county, Horseshoe creek in Laramie county, Muddy creek, Dry Muddy creek, Elkhorn creek, Claud creek, Garden creek, Little Squaw creek, Big Squaw creek, Spaulding creek and Loomis creek and tributaries in Natrona county; South Beaver creek in Crook county. The prosecution of surveys in 1892 in so many widely separated localities has increased the expense, but it was found to be advisable to do this, as there was immediate necessity for the determination of rights, to prevent conflicts on the streams surveyed.

In all over 500 miles of ditches were traversed, making the total length of ditches surveyed in the two years nearly 1,800 miles.

During the present season a change was made from the procedure of 1891. The pressure for an immediate determination of rights on the part of the appropriators from streams surveyed in 1891 made it necessary for the superintendents of Water Divisions 1 and 2 to take the testimony of appropriators before the map of these surveys could be prepared by the engineer. This rendered it incumbent on the party submitting testimony to provide a map showing the location and extent of the lands reclaimed. Owing to the difficulty in procuring surveyors to prepare these maps, the engineer undertook to furnish some of them in advance of the completion of the regular office plats; extra help was employed, and the parties for whom they were provided charged the cost of the work. It proved an unsatisfactory arrangement, as it seriously interfered with the work of the office and caused more or less annoyance to the division superintendent. As soon as possible it was discontinued and it was decided to hereafter defer the taking of testimony until the engineer's surveys and the map of the ditches had been completed. This map is submitted for the inspection of appropriators, and, if satisfactory to them, is accepted as correctly showing the location of their ditches and irrigated lands, thus obviating on their part the expense of the preparation of a map as a part of their testimony. The results, both to claimants and to this office, have been far more satisfactory.

STREAM GAUGINGS.

In connection with the surveys of ditches, guagings have been made of the streams, and, wherever possible, of the ditches. As the surveys were prolonged each year until December, many of the streams were measured at the time of least discharge and when there is practically no demand for water. This must be borne in mind in examining the table of these gaugings.

For example, Chugwater creek was surveyed in October, 1891, and there was no water in the stream for a considerable distance above its mouth. A measurement made in June would have shown an entirely different result.

Savery creek was measured in August, 1892; the bed of the stream near the mouth was dusty; one month earlier its discharge was in excess of the capacity of ditches taking water therefrom. The discharge of the Platte river in June, 1892, was in excess of 15,000 cubic feet per second; in October it was below 1,000 cubic feet per second.

In 1891 daily gauge rod readings were made on the North Platte, Green, Laramie and Little Laramie rivers, and on Clear Creek in Johnson county. Lack of time prevented a sufficient number of gaugings of these streams to permit of an accurate computation of the discharges, although enough for a close approximation.

In Clear creek a durable guaging flume has been constructed which will permit of the records so far secured being computed when future gaugings shall enable an accurate table of discharges to be prepared, but changes in the cross-section of the other streams are occurring from time to time and subsequent gaugings will have an uncertain value. The keeping of daily records has, therefore, been discontinued until they can be accompanied by frequent guagings of discharge and measurements of the cross-section of the stream.

It had been the intention to keep a continuous record of the discharge of Clear creek and a self-registering instrument was placed in the gauging flume for this purpose. This was accidentally destroyed and has not been replaced.

The details of stream guagings are included in the Appendix in table No. 2.

WATER DISTRICTS.

The Board is required to divide the water divisions into districts as rapidly as the necessity therefor shall arise. This will be determined by the rapidity with which the adjudication of rights is carried on.

The location of all districts will probably have to be defined within the next two years and as it is desirable that their boundaries be generally understood, maps of each division have been prepared showing the extent of each district created and of the proposed districts.

Under the territorial law the State was divided into ten districts; this number has been increased because there is neither economy nor efficiency in this arrangement. The commissioner is only paid for the time necessarily consumed in performing his duties. With large districts this time is greatly increased by the distances to be traveled over. When the services of a commissioner are needed, they are needed at once and he should be able to act promptly; this he cannot do if he must travel two or three days to reach the scene of his labors. It is probable that some of the districts created are too large and will have to be divided in time. It will be noticed that the Platte river is made the boundary between districts 6 and 7; this might seem a blunder, since it leaves the control of the waters of the main stream in doubt. No trouble can arise from this, however, as a scarcity in the main stream at this point will never occur. The opportunities for utilizing the water do not exist. This is equally true of the Big Horn river. Making these rivers the boundaries between districts is, at present, the most convenient arrangement, since, during a considerable part of the irrigating season, they cannot be forded and there is, as yet, a great lack of ferries or bridges.

If districts were to be made to embrace territory on both sides of these streams it would subject the water commissioners and appropriators to heavy and unnecessary expense, on account of the difficulty in crossing from one side of the river to the other.

REPORT OF P. L. NAISMITH, ASSISTANT ENGINEER.

ELWOOD MEAD,
State Engineer:

DEAR SIR:—I beg herewith to submit the following notes on the hydrography of the streams examined by me during the season of 1891–92.

Leaving Cheyenne on the 9th of May I proceeded to the mouth of the Little Laramie river at Wyoming station, on the line of the Union Pacific Railway, where I found that there were about three cubic feet per second running in this stream, the spring freshets not having yet reached there. Working up the stream the water gradually rose, until, on the 27th of the same month I gauged it at James May's ranch, below the Forks in the stream, and found that there were 562 cubic feet per second. I established a gauging station here and arranged with Mr. May to read the rod once a day until after high water. The reading on the rod the day it was established was 1.5. From the records now on hand it will be seen that the water gradually rose until the 11th day of June, when the reading on the rod was 3. Only having had one gauging at this point it is impossible to make an accurate calculation of the discharge at high water, but I feel safe in saying that it reached at least 900 cubic feet per second. From the 11th of June the discharge gradually lessened until the 29th of August, when I again visited the stream near its mouth, when there was about 15 cubic feet per second flowing.

West of the Little Laramie river there are four small streams which have their source in the Medicine Bow range and which are tributary to James lake and Cooper lake. These were visited during the second week in June. Four Mile and Seven Mile creeks were then each discharging about twenty-four cubic feet per second. Four Mile creek is a tributary of the Laramie river but there is a stretch of about eight miles at the lower end of this stream in which the water scarcely ever flows on the surface.

Dutton and Cooper creeks are tributary to Cooper lake and were each discharging about twenty-one cubic feet per second when gauged. They were gauged well up towards the head of the streams but there was very little water discharging into Cooper lake in either case.

On the 29th of August I crossed all of these streams very near the points where the gaugings were made in June and found that they were completely dry.

The months of June, July and August were spent in examining streams which are tributary to the North Platte river south of the Union Pacific Railway. The first stream examined was Pass creek. This has its source high up in the Medicine Bow range, close to the now famous Gold Hill, and consequently has a good supply of water all the summer. It was gauged on the 12th of June at the lower end of the pass, when there was flowing thirty-four cubic feet per second. At the same time one of the principal feeders of this stream was discharging into it, about twelve miles further down twelve cubic feet per second. This stream is known as Rattlesnake creek and is the main source of supply for the people living below its mouth, as all the waters of Pass creek proper are utilized above that point.

Continuing on down the east side of the river the next creek is Lake creek. This stream has a poor source of supply, its entire drainage being a portion of the western slope of Elk mountain. As a consequence it runs dry early in the season. At the time that I visited it in June it was completely dry. The same may be said of Cedar creek, the next one to the south. It also was completely dry at the lower end, when visited, but there was a small stream flowing at the upper end.

Brush creek is one of the best streams in the valley, having a large volume of water flowing all the year round. There was flowing in this stream on the 6th of August, below all diversions, about thirty-five cubic feet per second, and from the indications as to the point that high water had reached, the maximum flow of the season must have been enormous.

Discharging into the Platte, nearly opposite the mouth of Brush creek, is Grand Encampment river. This is one of the principal feeders of the Platte. Having its source high up among the snow-capped peaks of the Sierra Madre mountains, its supply is abundant and continuous. It was at about its lowest stage at the time I visited it, but even then it was a river of no small dimensions. Below all diversions there was discharging into the Platte one hundred and fifty-one cubic feet per second. As yet, the waters of this stream have been very little appropriated, only the lands lying in the bottoms and to a very limited extent on the second bottom being reclaimed. On either side of this stream are thousands of acres which can be easily reclaimed.

Continuing north the next stream is Cow creek. This is utilized to its full extent during the irrigation season and toward the latter end of the season is more than appropriated. On the 31st of July the entire discharge of this stream was some fourteen cubic feet per second.

The same may be said of Spring creek. While, as a rule, there is live water in this stream all the season, it gets very low in the later summer months. About five miles from the mouth this stream forks and we have what is called North Spring creek and South Spring creek. On the 23rd of July each of these forks was discharging fifteen cubic feet per second, while on the 20th of August there was scarcely two cubic feet per second discharging into the Platte.

Jack creek, the next on the list, does not differ from either of the preceding streams. On the 17th of July there were only twelve cubic feet per second flowing in the stream at the forks, well up towards the head, and on the 22nd of August there was scarcely three cubic feet per second flowing at the lower end.

One thing that must strike a person examining this section is the excellent facilities for storage reservoirs. At the head of both Cow and Spring creeks is a natural lake, which, at a comparatively small cost, could be utilized to hold the spring freshets until such time as they could be used to the best advantage. While the other creeks in this section are not favored with perhaps as good natural reservoirs, there are very favorable sites at the head waters of all of them.

The month of November was spent in the examination of Chugwater creek. At the time of my visit the creek was completely dry from a little below Bordeaux to within about three miles of the mouth. From Bordeaux up the volume flowing in the creek gradually increased, but the most that was flowing at any point on the stream during that month was perhaps ten cubic feet per second.

Bates creek was also examined during the fall. This stream is a tributary of the Platte in Natrona county. At the time of my visit in December the creek was completely dry at the lower end. The stream is made up of a number of small mountain rivulets which have their source to the south of Casper mountain. On all of these rivulets are a number of settlers, who have a small supply of water flowing all the year round, but after they come together the stream flows over great sand beds for miles, so that it can be easily seen that it will be necessary for a comparatively large volume of water to be flowing in the creek in order that there may be living water down to the mouth.

Lone Tree creek was examined early in March, 1892. This stream is a tributary to the South Platte river in Colorado. At all seasons there is living water from the Colorado line up the creek for about thirteen miles. Above the Goodell ranch the water comes out of the ground after having had an underground passage for ten or twelve miles. At all points there is a comparatively small flow at any season of the year, but, from observation, I am satisfied that there is a large underflow in this section of the country.

Lodge Pole creek is very similar to Lone Tree as regards the water sinking and flowing under the surface of the ground. At the time of my visit in March there was quite a stream of water flowing in the creek at the lower end of the Van Tassell ranch, while at the upper end of the same ranch it was as dry as a chaff pile. From there to the Warren home ranch the creek was practically dry, a slight showing of moisture only being visible in a few spots. From there to about a mile above the PO home ranch buildings there is running water, when it again vanishes from sight and we see no more of it till in the vicinity of the old Schwartz ranch. From there to the head there is living water, as a rule, but at all points on this stream there was a comparatively small discharge at any time during my visit.

The completion of the examination of this stream finished the season's field work.

Respectfully,
P. L. NAISMITH,
Assistant State Engineer.

CHEYENNE, April 22nd, 1892.

OPERATIONS

OF THE

STATE BOARD OF CONTROL.

Adjudication of Claims to Water. Creation of Water Districts. Supervision of the Division of Water among Appropriators.

The State Board of Control is composed of the State Engineer and the Superintendent of each of the four water divisions. Its powers and duties are defined in Sec. 2, Article 8, of the State Constitution, and in Sections 19 to 30, inclusive, of Session Laws of 1890, the constitutional provision being as follows:

"SECTION 2. There shall be constituted a Board of Control, to be composed of the State Engineer and Superintendents of the water divisions; which shall, under such regulations as may be prescribed by law, have the supervision of the waters of the State and of their appropriation, distribution and diversion, and of the various officers connected therewith. Its decisions to be subject to review by the courts of the State."

The Board organized in March, 1891, the Superintendent of Division No. 1, J. A. Johnston, being chosen secretary. Since that time the testimony in proof of appropriations to water from 35 streams has been completed; 947 certificates of appropriation have been issued and 199 proofs of appropriation in Water Division No. 1 and a large number in Water Division No. 3 are now before the Board, awaiting final action at the meeting in March, 1893.

These results have been secured without claimants, in the majority of cases, being subjected to any expense whatever. The blank proofs were furnished by the State. The places of taking and exposing testimony have been chosen with reference to the convenience of claimants, and the preparation of maps of ditches, by the State, has enabled appropriators to secure correct descriptions of land reclaimed at either nominal cost or at no cost whatever. Not only has the evidence of the use of water been secured at small cost, but it has been far more definite and conclusive than would be possible under the former system, even with a greatly increased outlay. That this is true is shown in Water Division No. 1, where, out of over 500 certificates of appropriation issued, there has been only one appeal from the decisions of the Board. In Water Division No. 2 there have been five appeals, but this has been due, in part, to the transfer of cases, on which the evidence was completed, from the District Court, and in part to a misunderstanding, on the part of appropriators, which led to the submission of incomplete statements. In this connection it is desired to call attention to the recommendation of the Superintendent of Water Division No. 1, for the modification of the law which will permit the Board to require the submission of additional evidence when such is required. If this could have been done nearly all the appealed cases in Water Division No. 2 would have been satisfactorily determined by the Board in the first instance and the expense of an appeal to the Court avoided.

The determination of rights to water in this State is attended with peculiar difficulties; the differing views of claimants as to what constitutes an appropriation; the large area of unused land under ditches and the lack of definite data as to when the first work was performed, greatly complicate the determination of both the dates and the amounts of appropriations under the present, as under any system of adjudication. That the law has worked well is conclusively shown by the fact that out of 947 certificates issued, only six have been appealed from, and it is only justice to the Board to state that the original evidence in four of these cases was taken under the former law and transferred to the Board by order of the court.

When the Board began its labors the settlement of water rights was greatly in arrears. Appropriations on only six streams had been determined under the territorial law. The entire number of claims adjudicated was less than 200, while the priorities of over 3,000 recorded claims were awaiting settlement.

It was imperative that immediate action be taken on some streams, while the early determination of the rights on all is important. It is necessary to the protection of prior appropriators, since it must precede the division of water by the State in time of scarcity. The evidence of the date and amount of appropriations is more easily obtained now than at a later date, and the information, thus secured, is required by the State Engineer in acting on applications for new ditches.

It is of great importance, however, that the acquirement of rights be so guarded as to preserve all unused water for those requiring it hereafter, and preventing its being absorbed in speculative holdings. This the Board has endeavored to accomplish in the adjudications completed. In doing this, a wide difference of opinion has been encountered among claimants as to both the legal basis of rights to water and the means by which they are acquired.

As these rights have already great pecuniary value, and as the future agricultural progress of the State is intimately connected with the establishment of correct principles to govern appropriations of water, it is important that the interpretation of the law by the Board be generally understood. This is essential, both to facilitate their labors, if their views are correct, or to hasten their correction, if erroneous.

WHAT CONSTITUTES AN APPROPRIATION.

In determining the extent and priorities of appropriations the Board has adhered to the following fundamental principles:

1st. That to constitute a valid appropriation the water must have been applied to a beneficial use, and in the case of appropriation for irrigation the water must have actually been applied to the land.

2nd. That the amount of the appropriation is governed by the volume used and by the requirements of this use. In the case of appropriations for irrigation, by the needs of the land reclaimed.

3rd. Where reasonable diligence is shown in the construction of diverting works and utilizing water, the appropriation dates from the beginning of work on the ditch, the survey to be considered as a part of such work. Where reasonable diligence is not shown, the appropriation to date from the utilization of the water.

4th. Priority of appropriation to give priority of right except in the case of appropriations made between 1888 and 1891, during which time the law made appropriations for domestic use a preferred priority.

5th. The present law restricts appropriations for irrigation to one cubic foot per second for each seventy acres irrigated. While this does not apply to lands reclaimed before its enactment, no appropriation for a larger amount has been made, because in all cases, so far considered, this volume has appeared to be ample.

6th. Transfers of rights to water, made in advance of any adjudication, either by the courts or the Board, have not been recognized, the reason being that parties had not such ownership as would enable them to give valid title to the water sold. No transfers, involving changes in location or character of use, have been recognized. The Board has taken no formal action on this subject, but the views of the writer are stated at the conclusion of this discussion.

It will be observed that the volumes of appropriations have been determined by the amounts used, or, in the case of appropriations for irrigation, by the acreage reclaimed. The legality of this interpretation of an appropriation was seriously questioned when the position of the Board was first stated, but the results which have followed have been generally accepted, as will be seen from the small number of appeals.

OPINIONS OF APPROPRIATORS.

Those who dissent from the doctrine that the water must be used before an appropriation is completed, do not agree as to what is required for its perfection. By far the larger class hold that the filing of the statement with the county clerk, of itself, gave the claimant an absolute ownership to the volume stated in said claim. This *ex parte* statement is usually referred to as their water right, and is regarded as being as valid a title to water as the patent of the government is to land.

Others believe that the carrying capacity of the ditch determines the volume appropriated. They base their opinion on the fact that the "Statement of Claim" required only the facts relating to the dimensions of the ditch; that a law was passed requiring county surveyors to measure ditches and give official certificates of their capacity The question is asked, what was the necessity of this if the volume appropriated is to be determined from other considerations? They explain that county surveyors' certificates were an expensive luxury, and are not disposed to accept the opinion that not only have they no value, but, on the contrary, have been an unmitigated evil. They determined nothing; established nothing; were a fruitful source of expense and trouble to irrigators, and the failure to confer any benefit has prejudiced many against all laws and against all attempts to regulate and control the diversion and use of the public water supply.

The majority of those holding the above views were at first disposed to regard the determination of unadjudicated claims as an interference with rights already established. The fact that a decree from the district court was necessary to the perfection of title to water under the territorial law is apparently not understood by one appropriator in ten.*

The doctrine that statements of claim conferred ownership scarcely needs discussion. They were *ex parte* statements, prepared in many cases by claimants who had no knowledge of the volume of water used, or of the significance of the terms used in the statements. They were recorded by an official who had no control over the public waters and no direct connection with irrigation. There was no investigation as to the accuracy of these statements nor opportunity for persons having adverse interests to examine or contest them. If they are to be regarded as conclusive evidence of ownership of the amount of water claimed, then there will be chaos at once. There is scarcely a stream in the State on which the first half-dozen claimants do not assert ownership to more water than the stream carries. There is one on record which claims 60,000 cubic feet per second, or more than the combined discharge of all the rivers in the State. The ditch to divert this volume is two feet wide and six inches deep. There are six separate claims to all the unappropriated water in the North Platte river, and on every stream of any magnitude are several statements of a similar character.

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*SEC. 1339, Revised Statutes, 1887. "For the purpose of hearing, adjudicating and settling all questions concerning the priority of appropriation of water, between ditch companies and other owners of ditches, drawing water for beneficial purposes, from the same stream, or its tributaries, within the same irrigation district, and all other questions of law and questions of right growing out of or in any way involved or connected therewith, jurisdiction is hereby vested, exclusively in the district courts, as follows:"

Much can be said in support of the doctrine that the amounts of appropriations are determined by the carrying capacity of ditches. The statutes of half the arid states, by implication if not by direct statement, make this the governing consideration. The language of the territorial law, defining what a statement of claim should contain; the requiring of surveyors' certificates of capacity of ditches and the description of proof to be submitted to the district court, all tended to foster that view.

A modification of the above view is that while the appropriation is secured through the construction of the ditch, its volume is determined by the acreage which it can be made to water, and regardless of the use or failure to use the water claimed to be appropriated. Quite a large percentage of all who have submitted testimony in support of appropriations have held to one of the views outlined above. The exact character of these opinions can be best understood by extracts from evidence in "Proofs" submitted. Only two will be given, but these are types of many of those received during the first sessions of the Board. The name and address of the party submitting proof will not be given, but the portion of the testimony given is, in both cases, an exact copy of the original.

"Extract of Proof of Appropriation of water from —— river, Water Division No. 1.

"5th Question. (a) State the date of the survey of the ditch or other distributing works through which the water claimed is diverted. (b) The date when the construction of such ditch was begun and when completed.

"Fifth Answer. (a) Spring, 1884, (b) Construction commenced at same time, completed in May, 1885.

"Seventh Question. State the dimensions of the ditch as originally constructed, and as enlarged, and if measured by the County Surveyor under the provisions of the Act of 1886; give the results of such measurements.

"Seventh Answer. An average width of 10 feet and depth of 2 feet; grade about 16 feet to the mile; carrying capacity about 52 cubic feet per second of time.

"Eighth Question. State when water was first used for irrigation or other beneficial purposes.

"Eighth Answer. Summer, 1885.

"Ninth Question. If for irrigation state the number of acres watered the first year, giving the legal subdivisions on which used.

"Ninth Answer. 640 acres. (Description omitted.)

"Tenth Question. State the number of acres watered each subsequent year, and give the legal subdivisions on which the water is used.

"Tenth Answer. Same as before.

"Remarks. We wish to state that we claim the full amount of water used in this paper, by right of appropriation and regardless of any subsequent legislation."

In this case the statement of claim gave the amount of the appropriation at 52 cubic feet per second. This is sufficient to irrigate about 3,000 acres more than has been reclaimed. While the exact act which, in the opinion of the claimant, completed the appropriation, is not stated, it is evident that the use of the water is regarded as being no part thereof. The subsequent legislation referred to is the conditions attached to the territorial law of 1888 and the present law, which limited appropriations to the volume used.

The second extract is taken from a "Proof of Appropriation" in a case where the claimant has appealed from the decision of the Board to the District Court. The appeal states that the appellant had appropriated water for 150 acres, while the Board has only issued a certificate of water sufficient for 60 acres. The reason for the Board's action and the ground of appeal are both apparent in the evidence.

Extract from "Proof of Appropriation" of water from ....stream, Water Division........

"Question No. 9. If for irrigation state the number of acres watered the first year, giving the legal subdivisions on which used.

"A. No. 9. 25 acres. (Description omittted.)

"Q. No. 10. State the number of acres watered each subsequent year and give the legal subdivisions on which the water is used.

"A. No. 10. Claimant increased the amount of land irrigated each year from 1882 to the present time, and now has about 60 acres under cultivation and irrigation. (Description omitted.)

"Q. No. 11. State the number of acres irrigated from said ditch in 1891, and give the legal subdivisions on which said water was used.

"A. No. 11. About 60 acres. (Description omited.)

"Q. No. 12. State the acreage said ditch is capable of watering, and show a map or plat on a scale of two inches to the mile, the location of said ditch and the land it is capable of watering.

"A. No. 12. 150 acres.

"Remarks. Claimant appropriated water sufficient for 150 acres of said land, and now claims water for said land. He does not use said water, has not heretofore, but if farming becomes more profitable he may desire to cultivate all of his land, and his appropriation was made to cover all of said land."

The map accompanying the proof showed that about

100 acres of the claimant's land could be watered, the remainder being on the opposite side of the stream. It showed, however, that other lands could be watered, so that the ditch covered about 150 acres. The map prepared by the Assistant State Engineer agreed with this.

The order of the Board, as before stated, fixed the appropriation at the water required for the land reclaimed, while the appeal was taken on the ground that water for 150 acres *had been appropriated.* If this is true, how was it appropriated? Does the belief of the individual that he will, at some future time, require a certain volume of water constitute an appropriation of that volume? Or does the fact that a ditch can be made to water a definite area of land give the owner of that ditch title to the water required for its reclamation? The establishment of appropriations on either of the above principles would make of water a speculative commodity, and would, in the opinion of the writer, invalidate the only argument which is now advanced in support of its passing into private control, which is that the public may derive a benefit therefrom.

What the practical result would be of permitting rights to water to be acquired in advance of its use is illustrated by the conditions existing on the stream involved in the last extract of "Proof" given.

The claimant states that he may wish to use the water when farming becomes more profitable. Meantime, however, others have used all the water of the stream without waiting for larger returns. In all, 435 acres of land have been reclaimed, and is the home of six farmers and their families. The demand of the land now cultivated is in excess of the discharge of the stream, and later appropriators have a scanty supply. This was the statement of appropriators, and was confirmed by the engineer's gauging of the stream in July, the volume being 5.25 cubic feet per second, while the aggregate of the appropriations for the land reclaimed, on a basis of one cubic foot per second for each seventy acres, is 6.21 cubic feet per second. If, therefore, the appropriation had been for 150 acres instead of sixty, the water for the additional ninety acres would be taken from a present user and given to a proposed user, to be held as a speculative commodity until it becomes valuable enough for him to use, or to be sold to those now using it. The injustice of excessive appropriations is aggravated by the fact that in a majority of cases the excess means the injury of some present beneficial user. The first two or three priorities would be vastly enhanced in value, but the rights of all the remainder be made practically worthless. To make appropriations equal in amount to the recorded claims would, on seventy-five per cent. of the streams adjudicated, give all the water to the first two or three priorities.

The evils which extravagant grants would in the end entail, would not at once be manifest. Few persons have an accurate knowledge of the volume of water they have been using, and few would, at first, appreciate the possibilities of an extravagant allowance. It is probable that the making of large appropriations would, for the present, have been a popular proceeding tor the Board, because it would have more nearly coincided with the ideas of the great majority of claimants. Those who believed themselves to be the owners of 20, 50 or 100 cubic feet of water felt somewhat aggrieved at an order which only gave two or three cubic feet, and it was only a partial satisfaction to be assured that this volume covered all the water that had ever been used, and was ample for all their present requirements.

There are few streams, on which the rights to water have been adjudicated, that the aggregate of the appropriations, as made by the Board, does not equal the discharge. To have made appropriations equal in amount to the wishes of claimants would not have increased the water supply a particle, but appropriators do not always reflect upon this fact. Even those holding late priorities are as urgent for the Board to be liberal in its decrees as those holding the earlier rights. Yet, a moment's reflection would show them that such a policy on the part of the Board would give the entire stream to a few of the early priorities and render valueless the claims of later ones.

Whatever the results may be, the appropriators of water under the Wyoming territorial law are entitled to the full benefit of its provisions, and the important question is, have they been accorded this under the doctrine of appropriation adhered to in these adjudications? The position of the Board was taken first of all because it was believed to be the law, and without any especial regard to economic considerations. The Wyoming law was a direct copy of the irrigation law of Colorado. The latter has been subjected to an exhaustive review by the Supreme Court of that State, to determine the meaning of the word "appropriation" as used therein. The decisions of this court, while not of necessity governing the interpretation of the law in this State, are certainly entitled to serious consideration, since not only the law but the physical conditions of the two states are practically the same. Extracts from several opinions touching this question will be given.

In the case of Wheeler vs. the Northern Colorado Irrigation Company, 10th Colo., the court said:

"To constitute a valid appropriation, the water diverted must, within a reasonable time, be applied to some beneficial use, but the priority of an appropriation may date, proper diligence having been exercised, from the commencement of the ditches."

In the 13th Colo., Farmers' Highland Reservoir and Canal Company vs. Southworth, the court says:

"To make any diversion of water from a natural stream an appropriation within the meaning of the Constitution, it must be applied to some beneficial use, and, in the case of irrigation, it must be applied to the land."

In Coombs vs. Agricultural Ditch Company, Colo. Supreme Court, No. 12 Pacific Reporter, 1892, it is stated that "A mere diversion of water is not an appropriation of it, within the meaning of the Constitution. A diversion without application to beneficial use is unlawful."

There are a number of other opinions to the same effect, some of them being of very recent date. They are conclusive as to the necessity of the water being used to render an appropriation complete. It is believed that the present procedure for determining the character and extent of rights to water is as expeditious, satisfactory and economical as any which can be devised, and it is confidently predicted that the continued operation of the law for the next few years will not only serve to settle many of the vexatious questions now confronting us, but will prove a very efficient factor in promoting the further extension of our agriculture.

Only one thing more is needed, which is to limit appropriations to the locality where they are acquired. It is the belief of the writer that appropriations for irrigation should not be made, or regarded as made, to either ditches or owners of ditches, but should inhere in the land reclaimed and be inseparable from it. Any departure from this will inevitably lead to confusion in the administration of the law, and tend to impair the stability and value of agricultural holdings.

It must be remembered that a considerable percentage of the water diverted and used in irrigation returns to the stream through surface or underground channels, and is utilized a second time by appropriators below. The volume of water thus returning to the stream continues to increase for several years after irrigation begins, after which period it is practically uniform in amount. It is only after this equilibrium is established that the Water Commissioner can perform his duties with certainty and satisfaction. If constant changes are to be made in the location where water is used there will be a constant disturbance of this equilibrium and consequent uncertainty and dissatisfaction with the labors of the Water Commissioner. It must also be remembered that the location of the diversion has much to do with the value of an appropriation It will be seen in Mr. Naismith's report that many streams which have a large volume of water for a few miles in their course entirely disappear at other places to reappear farther down. This is true of so many streams that to permit of changes in the location of appropriations is to make possible a complete revolution in the conditions which now prevail, or which may prevail at the time the waters are adjudicated. It would throw an uncertainty over water rights of all except the first appropriators on the stream, would make irrigated agriculture a hazardous occupation instead of being what it should be, an exceptionally stable form of agriculture. It would lead to endless controversies and absolutely prevent a systematic division of water among those entitled to its use.

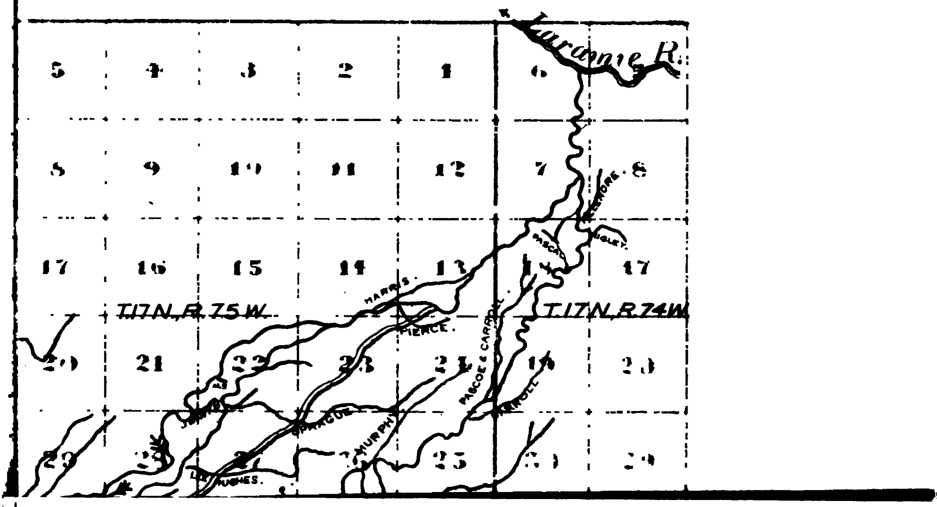
SUMMARY

—OF—

CERTIFICATES OF APPROPRIATION

Issued by the State Board of Control in 1891 and 1892.

Table No.	Name of Stream.	Acres Irrigated.	Amount of Water Appropriated.
4	Little Horse Creek	3,858	54.86
5	Smith Creek	980	13.97
5	Wolf "	9,595	137.04
6	Little Goose Creek	14,673	211.88
6	Soldier Creek	1,545	22.24
6	Big Goose Creek	13,287	378.14
6	Tongue River	3,680	62.12
6	Columbus Creek	2,359	34.80
6	Young's "	306	4.36
6	Amsden "	435	6.21
6	Pass Creek	2,098	43.33
6	Twin "	265	3 78
7	Little Laramie River	48,986	676.13
7	Soldier Creek	1,180	16.92
7	Cooper "	4,470	44.67
7	Dutton "	6,240	90.50
7	Four Mile Creek	1,920	27.43
7	Seven Mile "	2,805	40.77
7	Pass Creek	8,716	125.89
7	Lake "	895	12.84
7	Cedar "	1,240	18.39
7	Brush "	6,150	88.23
7	Big "	3,400	48.78
7	Beaver Creek	2,346	33.47
7	Grand Encampment River	2,823	40.71
7	Cow Creek	5,140	72.74
7	Calf "	800	11.42
7	Spring Creek	9,277	122.90
7	Jack "	5,375	77.42
7	Bates "	2,417	35.09
7	Chugwater Creek	19,640	274.87
7	Lodge Pole "	10,732	156.60
7	Lone Tree "	2,405	33.43
7	North Bear "	635	9 05
8	Fontenelle "	2,985	43.07
	Total	203,658	3,074.05


Laramie R.
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T17N, R75W.
T17N, R74W.
HARRIS.
PIERCE.
PASCOE & CARROLL.
PASCOE.
BIGLEY.
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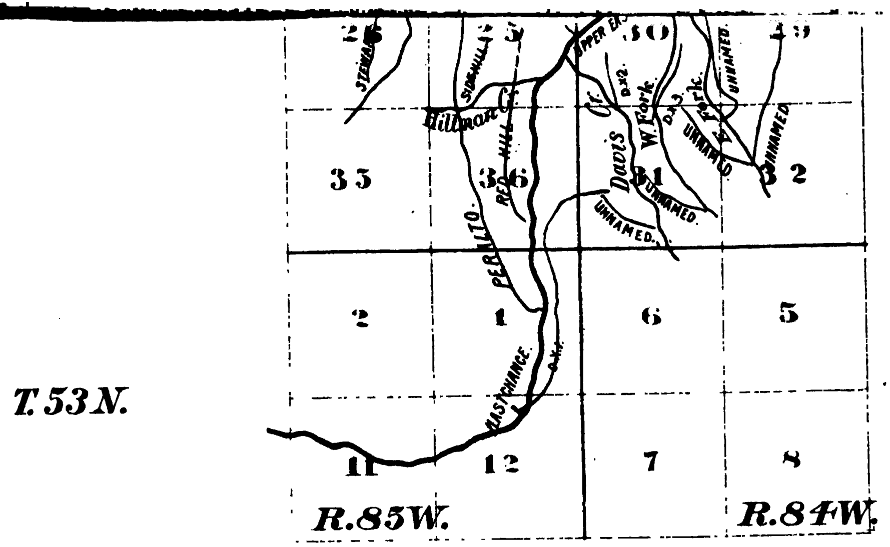

ATLAS SHEET No. 21.

*

BIG AND LITTLE GOOSE CREEKS

AND TRIBUTARIES.

Nov. 20, 1892.

Biennial Report of State Engineer.

RECOMMENDATIONS.

I respectfully recommend to the next General Assembly, the following changes in the irrigation law:

Fees should be prescribed for the following services:

Examining and recording applications for permits to appropriate water.

Recording statements of claim to water for appropriations made under the territorial laws.

Preparing copies of any of the records of this office.

These fees should be deposited with the State Treasurer and placed to the credit of the Assistant Engineer's fund. If this is done no increase will be needed in the appropriations for the office. If not, a material increase will be necessary to enable the work to be performed.

The sections of the law which prescribe the procedure in contests should be revised in accordance with the suggestions in the report of the Superintendent of Water Division No. 1.

Section 26 should be amended. The provisions which require the priority number of appropriations and the amount of water previously appropriated to be made a part of Certificates of Appropriation should be stricken out. So long as they remain in force no certificates can be issued on streams where a final determination of rights has not been had. It thus prevents, on many streams, the issuance of the certificates described in Section 36. It is extremely important that this change be made, as, otherwise, the Board will be embarrassed in issuing certificates to appropriators complying with the provisions of Sec. 34.

The portions of the law which prescribe the procedure in appeals from the decision of the Board to the District Court need revision. The law should provide for the transmission of the decisions of the Court to the State Engineer, and for their being made a matter of record in his office. At present he has no official means of being informed of such decisions. They are required for the preparation of instructions for Water Commissioners.

REPORT OF SUPERINTENDENT

—OF—

WATER DIVISION NO. 1.

ELWOOD MEAD,
President State Board of Control:

In compliance with your request I beg leave to present the following report of the work in Water Division No. 1, during the years 1891 and 1892.

The Board of Control, at its first annual meeting, designated the Little Laramie river and its tributaries, the North Platte and its tributaries south of the crossing of the U. P. Railway at Fort Steele, as the streams most used in irrigation in Water Division No. 1, and ordered the adjudication of the water rights of those streams. Various smaller streams in the vicinity of those mentioned were also included in the adjudication, for economic reasons; it being convenient for the engineer to do all the work while in the vicinity, and the superintendent could take testimony at the same time and place that the testimony on the other streams was taken.

Testimony was taken as to the rights to water on several other streams in this division, at the urgent request of the appropriators thereon.

The first adjudication attempted in this division was that of the waters of Little Horse creek. This matter had been before the District Court, but was transferred to the Board of Control for a determination of the rights of the various claimants. After an examination of the testimony, which had been taken before a referee appointed by the Court, it was found necessary to have additional testimony. This was taken by the Division Superintendent on the 16th day of April, 1891, and a decree, in accordance therewith, rendered by the Board at an adjourned session, held on the 4th day of May, 1891. The first original testimony taken in this division was upon the Little Laramie river. This commenced on June 7th, 1891. It was opened for examination by all interested parties on Oct. 5th, 1891, and, there being no contests, the testimony, as taken, became the basis from which the decree was formulated.

On June 15th, 1891, I began taking testimony in the adjudication of the water rights of the North Platte river and its tributaries south of the U. P. Railway in Wyoming. Said tributaries are Pass creek, Lake creek, Cedar creek, Brush creek, Douglas creek, Beaver creek, Big creek, Grand Encampment river, Cow creek, Calf creek, Spring creek, Jack creek and Sage creek. The testimony on these streams was submitted for public inspection at Saratoga, December 1st to 8th, 1891. The Jack Creek Land & Cattle Company filed a contest on Jack creek against Matherson's ditches Nos. 1 and 2, which was heard at Saratoga March 4th, 1892, at which date additional testimony in the Jack creek adjudication was taken.

Testimony was taken in the adjudication of the water rights of Cooper, Dutton, Four Mile, Seven Mile and Soldier creeks in Albany county, beginning on July 15th, at Laramie. This testimony was submitted for public inspection, at Laramie, on the 8th, 9th and 10th days of October, 1891.

A mutual contest was instituted on Soldier creek for the purpose of obtaining additional testimony in relation to that stream. A contest was also brought on Cooper creek, but no hearing was had, as the contestants failed to give legal notice to the contestee. I was called to take testimony on Fontenelle creek, in Water Division No. 4, on account of the superintendent of that division being one of the appropriators from that stream. The taking of this testimony was commenced August 15, 1891, and, when completed, was submitted for public inspection at the house of C. W. Holden on the 21st of the same month. No contests being brought, a decree was rendered in conformity therewith.

By request of various interested parties, the adjudication of rights to the waters of Chugwater creek was taken up, and, after legal notice, I began taking testimony on the 3rd day of November, beginning at Iron Mountain station. From this place the hearing was adjourned to Chugwater post-office on the 6th day of November and completed at Bordeaux post-office on the 9th day of the same month. This testimony was submitted for public inspection at Chugwater post-office on the 14th day of December, 1891. A contest was brought by the John Hunton Company against the evidence given in relation to the Chugwater ditch No. 1, and hearing had, at which additional testimony was produced. A contest was also instituted by J. A. McArthur against the testimony given in relation to the Parker ditches Nos. 1 and 2. A hearing was held, at which additional testimony was taken.

By urgent request of appropriators of water from North Bear creek, who had not been included in the decree of the District Court determining the rights to water on this stream, the adjudication of that stream commenced and testimony was taken at Iron Mountain post-office on the 11th day of December, 1891, and submitted for public inspection on the 16th day of December at the same place. No contests were filed.

By request of the appropriators of water from Bates creek, the adjudication of that stream was begun and testimony taken at Freeland post-office on the 17th day of December, 1891, and submitted for public inspection on the 18th day of the same month at the same place. There being no contests, a decree was rendered in conformity with the testimony given.

At the annual meeting of the Board of Control, which convened March 9th, 1892, decrees were rendered in these several adjudications, in accordance with the testimony, and 495 certificates of appropriation issued. But one notice of appeal from the decision of the Board in all these adjudications has been filed.

At the urgent request of appropriators of water from Lone Tree and Lodge Pole Creeks, an adjudication of the waters of these streams was agreed upon and testimony taken at the office of the Board of Control; that on Lone Tree on the 25th day of March, 1892, and that on Lodge Pole on the 26th day of the same month. At the same place the testimony in both adjudications was submitted for public inspection on the 16th day of April. No contests being filed, a decree was rendered, in conformity with the testimony, at an adjourned session of the Board of Control, held on the 4th day of May, 1892. Ninety-nine certificates were issued as a result of this work. No appeals have been taken from the decrees rendered in these adjudications. This makes a total of 594 certificates issued in this division, as the result of one year's labor.

Eight Water Commissioners have been recommended and appointed in this division. Six of them have been called upon to act during the season of 1892. Although the work was entirely new to all but one of them, no serious trouble has been encountered in regulating the waters of any of the streams upon which decrees have been rendered by the Board of Control. Considerable trouble has been experienced from time to time in trying to apportion the waters of Crow and Horse Creeks under the existing decrees, which appear to have no particular basis for the amounts decreed, except that each claimant was allowed all that he claimed, regardless of what effect it might have on other rights. I can see nothing but trouble ahead for the Commissioners who attempt to regulate the waters of these streams under existing decrees. I do not know what steps could be taken to right this matter, but believe that it might be done by an order from the District Court, requiring the Board of Control to re-adjudicate them. This action would have to be brought, I believe, by a petition of the parties in interest on the streams.

The following work has been done in this division during the fall and winter of 1892.

On the 11th day of October, at Dixon, Carbon County, testimony was taken in the adjudication of the waters of Snake River and its tributaries in Carbon County, Wyoming, and submitted for public inspection on the 20th day of the same month at the same place. No contests were filed in this matter, and the same is now before the Board for its action.

On the 15th day of October, at Rawlins, testimony was taken in the adjudication of the waters of Separation creek, in Carbon County, and on the 22nd day of the same month the testimony was submitted for public inspection and two notices of contests were filed, which as yet have not been heard.

On the 15th day of November, at Glendo post-office, testimony was taken in the adjudication of waters of Horse Shoe creek in Laramie county, and on the 29th day of the same month testimony was submitted for public inspection. No notices of contests being filed, this testimony is now before the Board for its consideration.

On the 6th day of December, at Casper, in the county of Natrona, the adjudication of the waters of the following streams, viz: Muddy, Beach, Goose, Big and Little Squaw, Elk Horn, Gordon and Loomis creeks and Dobbin Springs. On the 20th day of the same month testimony in all these cases was submitted for public inspection. One notice of contest was filed, which is now pending,

The work of the Division Superintendent being of a nature for which no precedent had been established, naturally a great many difficulties were encountered at first in securing testimony of sufficient reliability on which to base an accurate decree. This was partially due to the defective method in which the testimony was taken, and on account of the appropriators not informing themselves before appearing to give their testimony. The greatest difficulty encountered was in having the lands irrigated accurately located, mistakes having repeatedly occurred by appropriators giving a wrong description of the lands irrigated. Another difficulty encountered was the inaccuracy in the maps or plats prepared by the appropriators as a part of their testimony. During the season of 1892 both of these difficulties have been in a great measure overcome by the State Engineer making a survey and preparing the official map or plat of the streams and ditches, of which a tracing was furnished the superintendent before he commenced taking testimony.

By means of this map the superintendent is enabled to detect any mistakes or inaccuracies in the description of the lands irrigated; it also enables the appropriator to more easily determine the location of his land and the acreage watered. The acceptance of this map or plat makes it a part of the testimony, thereby relieving the Board of a great deal of trouble which was formerly encountered in making up the decree.

STATE LAND COMMISSION.

The last Legislature made it a part of the duties of the members of the Board of Control to select the lands donated to the State by the general government at the time of the admission of Wyoming. In compliance with this duty I have selected in Laramie, Albany, Carbon, Sweetwater and Converse counties something over 155,000 acres which have been recommended to the State Land Board for their action. All my recommendations have been accompanied by a request from parties to lease the land, if the selection was approved. In making selection, I have endeavored to select such lands as would produce an immediate and continuous revenue to the State.

SECRETARY BOARD OF CONTROL.

At the first meeting of the Board of Control I was selected as secretary, in compliance with law, which says that one of the members of the Board shall be chosen for that position. I have endeavored to keep an accurate record of all the proceedings and findings of the Board, in a book provided for that purpose.

No provision was made for the payment of the secretary's salary, other than the ordinary per diem of the members of the Board of Control. This method of payment is not satisfactory. The duties of the secretary require his continuous attendance at the office of the Board of Control. Each day brings more or less correspondence, which must be taken care of if the office is to be conducted in the interest of those whose business compels them to apply to it for information. There is an increasing number of calls for abstracts of the records of this office, and, in case of appeal from the decision of the Board, it is necessary that the Secretary prepare a certified copy of all the findings in such cause for the use of litigants.

I would suggest that the Secretary be authorized by law to collect some fee for furnishing the abstracts and certified copies of findings of the Board of Control, and that he turn such fee into the State Treasury to be applied to the per diem fund of the members of the Board of Control. The payment of the salary of the Secretary at the regular per diem of the members of the Board of Control would make his salary large in comparison with other officers. Therefore, I would suggest that he be allowed some fixed salary, as his duties will be constantly increasing until after the final completion of the adjudication of the waters of the State.

The following is an outline of the orders of the Board in Divisions No. 2, 3 and 4:

In Water Division No. 2, Sheridan County, the adjudication of Smith creek, Wolf creek and Little Goose creek had been commenced by the courts. Testimony had been taken but no decree rendered. These cases were referred to the Board of Control for final settlement, and at an adjourned session of the first meeting of the Board, held on the 4th day of May, 1891, decrees were rendered on Smith creek and Wolf creek from the testimony received from the court and supplemental testimony taken before W. J. Clarke, Superintendent of that Division. Seven certificates of appropriation were issued on Smith creek, and twenty-four on Wolf creek. It was decided by the Board at this meeting that additional testimony would be necessary in the Little Goose creek adjudication. Superintendent W. J. Clarke was instructed to procure the same. In addition to this, it was ordered by the Board that the adjudication of Pass creek, Twin creek, Tongue river and its tributaries, Soldier creek and Big and Little Goose creeks in Sheridan County, be taken up as new work. Testimony in these adjudications was taken by Superintendent Clarke and presented for the consideration of the Board at its second annual meeting in March, 1892, when decrees were rendered as follows:

On Pass creek with seventeen appropriators, Twin creek with three, Amsden creek with six, Young's creek with five, Columbus creek with thirty, Tongue river with thirty-five, Little Goose creek with eighty-eight, Big Goose creek with ninety-nine, and Soldier creek with thirteen, making in all 327 appropriations from these streams, for which certificates were issued to each appropriator. Five appeals have been taken from the decrees rendered, to the District Court of the Second Judicial District for Sheridan County. These appeals were occasioned, in almost every instance, by the insufficient testimony given by the appropriators themselves.

There is no record of work done in Division No. 3, and the only adjudications in Division No. 4, of which there is record, was upon the testimony taken by the Superintendent of Water Division No. 1, on Fontenelle creek, in which there were twenty-six certificates of appropriation issued. Testimony was taken by Superintendent C. W. Holden in Water Division No. 4, on Slate, Muddy, La Barge, Dry Piney, and Horse creeks, but, owing to a greater portion of the land not having been surveyed, it was found impossible to render an accurate decree. This testimony was filed in the office of the Board of Control until such time as supplemental testimony could be taken, which would give the legal subdivisions of land reclaimed. The whole number of certificates issued from this office as a result of the work done by the several members of the Board of Control for the year ending March 8th, 1892, is 947. This work has, as a rule, been satisfactory. In Division No. 1 only one appeal from the decisions of the Board to the courts has been made, and in Division No. 2 five appeals, making six in all; most of these really not appealing from the decrees as rendered by the Board, but for the purpose of getting the matter before the courts so that additional testimony could be taken in relation to their claims, which testimony they had neglected to present before the Superintendent.

I wish to call your attention to that portion of the Session Laws of 1890 in relation to the method of bringing contests before the Division Superintendent. The law allows the contestant to designate the time when the contest shall be held, which shall not be less than ten, nor more than fifteen days from the date of the notice, but places no limit on the time in which the contestant has to give the notice. I believe that the Division Superintendent should be allowed to designate the time and place when and where such contests should be held. Also that some limit as to the time within which contests must be heard be designated.

If Section 23, Chapter 8, Session Laws of 1890, were amended, as follows: By striking out all that part of the section after "in writing" in the seventh line, to, and including the word "dispatched" in the nineteenth line, and the following inserted: "Within ten days notify the superintendent of such contest. The superintendent shall immediately designate a time and place when and where such contest shall be held, and shall notify the parties to the contest by registered mail, or personal service, of the time and place, which time shall be not less than ten days from the date of the notification. The superintendent at his discretion, or upon proper showing, may adjourn the hearing from time to time, providing that it shall be held within sixty days from the day of the submission of the original testimony for public inspection."

I would also suggest that the law be so amended that after all the testimony in an adjudication had been taken before the superintendent that it be his duty to immediately examine the same for the purpose of determining whether any serious inaccuracies or conflicts occur therein, and should such be the case, that he be authorized to call for supplemental evidence by citing the parties in interest to appear before him with such witnesses as may be necessary, at some suitable place which shall be designated by the superintendent.

I would also recommend that some action be taken by the Legislature for determining the rights of parties who refuse or neglect to appear before the Division Superintendent, and present testimony in relation to their appropriations at the time legally designated for that purpose.

There have been several cases of this kind which have been a great source of annoyance to the Division Superintendents, as their authority to receive testimony clearly ends with the date of the submission of testimony for public inspection. One of these cases is already in the courts of the First Judicial District. Under the law, as it now stands, there appears to be considerable doubt as to the standing of the parties applying to the courts for relief. After having had legal notice to appear before Division Superintendent, it appears to the writer that it would be proper to allow parties, who refuse or neglect to present proof of appropriation, at the time designated by the Division Superintendent, the privilege of submitting such proof to the District Court. The increased cost of such procedure will prevent many abusing this privilege.

REPORT OF SUPERINTENDENT

—OF—

WATER DIVISION NO. 2.

DEAR SIR—I have the honor to submit the following report, as Superintendent of Water Division No. 2:

In the spring of 1891, at the first meeting of the Board of Control after my appointment, the adjudications of the waters of Smith creek and of Wolf creek, in Sheridan county, were taken up. The evidence as to the appropriations of the waters of these streams was referred to the Board by the Court of the Second Judicial District. The Board found great difficulty in reaching a decision upon this evidence. In the case of Smith creek several questions had been raised which the Board regarded as outside of its jurisdiction. One of these was a dispute as to the ownership of certain irrigation works. There were no maps or plats showing the location of the ditches or the irrigated lands along this stream, and it was found necessarp to adjourn the meeting of the Board of Control until supplementary evidence could be secured. This was taken by myself at Dayton, Wyoming, in April, 1891, and was submitted to the Board and considered, in connection with the evidence taken before the referee, at an adjourned meeting, held May 5, 1891. As the Board could not decide the property right questions raised in the proceedings before the referee, it was necessary for its decision to be appealed to the District Court, in order that these matters might be decided. I am informed that the case is still pending.

The adjudication of rights to water on Wolf creek was brought to a more satisfactory conclusion. Twenty-four ditches divert the water of this stream, there being forty-three appropriators. The absolute necessity for a map, showing the location of ditches and irrigated lands, as a part of the evidence, was so apparent that an order of the Board was entered of record, requiring all proofs of appropriation to be accompanied by a satisfactory map before they were accepted by the Division Superintendent. This has since been modified by the postponement of all proceedings in the taking of testimony until the completion of the surveys and preparation of a map by the State Engineer.

The testimony as to rights to water from Little Goose creek had been taken before a referee appointed by the court of the Second Judicial District. This evidence was also transferred to the Board of Control. Its examination showed that it would be necessary to have supplemental testimony, including the plats showing the location of ditches and irrigated lands, before the Board could render a satisfactory decree. This supplemental evidence was taken by me at Sheridan, Wyoming, in the month of August, 1891. The date at which this evidence was submitted rendered it too late to bring it before the Board in time to be of any service in the division of water in 1891, and its consideration was deferred, therefore, until the meeting of the Board in March, 1892. During the winter of 1891 and 1892 I received the evidence of the appropriators of the waters of Tongue river and its tributaries, with the exception of West Pass creek, through an error, and South Tongue river. I also received the proofs of appropriation on Big Goose creek and Soldier creek, in Sheridan county, and Rock creek, in Johnson county. The appropriators from these streams, as a rule, submitted very satisfactory plats, some of them being prepared by themselves; the remainder being made for them by local surveyors. The evidence, thus taken, was considered by the Board of Control at its meeting in March, 1892, and certificates of appropriation issued to the claimants of the water of Tongue river, Amsden creek, Twin creek, East Pass creek, Young's creek, Big Goose creek, Soldier creek and Little Goose creek.

The adjudication of Rock creek was not completed, a contest having been filed, but the evidence had not been heard at the time of the meeting of the Board.

Only two commissioners served in this division in 1891; these were J. C. Rummel, Commissioner of Water District No. 5, and J. D. Sherrod, Commissioner of Water District No. 2. So far as I am informed their labors were entirely satisfactory.

NOTES—The Superintendent of Water Division No. 2 has resigned since the above was written.

No report has been received from the Superintendent of Water Division No. 3, and there is, at present, a vacancy in Water Division No. 4.

APPENDIX

TABLE No. 1.

List of "Permits to Appropriate Water" Approved
and Recorded in the

STATE ENGINEER'S OFFICE

BETWEEN

JAN. 1, 1891, and NOV. 30, 1892.

PERMITS TO APPROPRIATE WATER.

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width.		Depth	Grade			Year	Month	Day
				Top.	Bot'm							
1	Chas. A. Guernsey	North Platte River	10	56	40	8	1	$ 150,000	5,000	1894	July	1
1	" " "	" " "	5	60	50	8	1	150,000	1,500	1894	"	1
3	*John T. Norton	Big Popo Agie River	1.5				100	18,000	3,600	1892	June	1
1	†John B. Anderson	North Platte River	275	224	200	8	1.32	3,000,000	6,400	1894	Feb'y	28
1	W. F. Hamilton	La Prele Creek	11					10,000	19,200	1893	March	1
1	A. M. Crafts	" " "	15	24	12	4	2.112			1892	Dec.	
1	" " "	" " "	20	42	20	6	1.584			1892	"	
4	R. W. Faris	Green River	15	28	20	4	1	12,000	12,000	1894	March	11
1	Alvah W. Ayres	Apron Alkali Gulch Creek	1.5	6	4	2	4	850	240	1893	"	15
1	Frank O. Williams	Calf Creek	1.5	5	4	1.5	6.5	250	160	1892	"	1
1	Jno. W. Bright *et al*	Laramie River	5.25	26	10	8	2	4,734.80	3,000	1894	May	15
3	John T. Norton	Grey Bull River	2	5	3	1	6.66		640	1892	July	15
1	W. F. Hamilton	North Platte River	45	40	30	5	2.11	200,000	58,880	1895	Oct.	1
4	Robt. Anderson	Tributary to Salt Wells Creek	2.5	6	5.5	2	10	100	80	1891	April	4
1	Wm. E. Grimes	Willow Creek	2.5	9	6	1.5	2.5	1,000	1,800	1891	Oct.	2
1	Alvah W. Ayres	Alkali Gulch Creek	1.5	5	3	2	4	500	1,000	1892	April	15
4	Wm. A. Carter	Black Fork	5	8.13	2.38	2.87	2.5	7,500	2,460	1893	May	15
1	Jos. Long *et al*	Deer Creek	3	7	5	1	4	750	320	1891	Sept.	1
3	A. J. Gaylor, et al	Popo Agie River	5	5.5	3	1	6.66	1,500	360	1893	May	6
1	John Storrie	Hat Creek	2.5	5	3	1	3.7	250	1,920	1894	"	1
1	" "	" "	3.5	5	3	1	3.7	700	300	1894	"	1
1	A. J. Bothwell	Brush Creek	12	35	25	7	3	35,000	27,000	1894	"	1
1	" "	Medicine Bow	35	35	20	7	3	65,000	76,000	1894	"	1
2	Wm. K. Ross	Tributary of Johnson Creek	.5	1.5	1	1	20	100	120	1893	April	1
2	" "	" " "	.5	1.5	1	1	20			1893	"	1
1	‡City of Laramie	Laramie River								1895	"	7
2	Wm. J. Hawkins	Silver Spring Creek	3.5	1.5	1.5	2	75	5,000	500	1893	"	1

* 24 in. Pipe. † Acreage includes only land in Wyoming. ‡ Water Works.

Permits to Appropriate Water.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width.		Depth	Grade			Year	Month	Day
				Top.	Bot'm							
1	Mary E. McPhail	Springs	2	4	3	1	7	$ 250	480	1893	Sept.	1
1	A. P. Phillips	Sand Creek	3	8	6	4	6	1,000	1,360	1894	"	1
1	Wm. H. Holfard	Springs	1.5	1.5	1	.83	50	25	160	1893	"	1
1	" "	N. Fork of Grand Encampment	3	5	3	1	4	300		1894	"	1
1	J. W. Heather	" " " "	7	12	10	1.5	6.5	4,500	4,480	1896	"	1
2	C. W. Bedell	Beaver Creek Stockade	1.5	2	1.5	1	6	400	320	1893	"	1
2	S. W. Flowers	South Fork Big Piney	5	12	8	1.5	10	3,500	2,120	1894	"	1
1	E. H. Kimball	Big Box Elder Creek	3.375	7	5	1	5	750	680	1893	"	1
1	" "	" " " "	2.25	7	5	1	5	450	240	1893	"	1
2	Jessie Freel	Beaver Creek Stockade	1.25	2.5	2	8	6	200	160	1892	"	1
2	Jos. H. Freel	" " "	1.25	2	1.5	1.5	6	200		1892	"	1
2	A. A. Shideler	" " "	.25	1.5	1	1	6	100	160	1892	"	1
1	*Martin Gross, et al	La Bonte Creek	1.75	7	5	1	3	450	103	1894	"	1
1	* " " "	" "	2	7	5	1	2	500	124	1893	"	1
1	F. P. Parker	Laramie River	9.5	8	6	1.5	4	2,200	2,720	1895	"	1
1	†S. W. Downey	South Fork Brush Creek	.6	4	3	3	21.12	750		1893	"	1
1	K. F. Hart	North Platte River	3	8	6	1	1	2,000	560	1894	"	1
4	John Fluchiger	Strawberry Creek	3.5	7	5.5	2	7	250	480	1893	"	1
4	Geo. C. Hetzel	" "	1.5	7	5.5	1.5	7	225	320	1893	"	1
1	M. Campbell	Alkali Gulch	3	6	4	1	2.5	900	500	1893	"	–
3	M. B. Mutting	Bennett Creek	3	5	3	1	13.33	800	240	1894	"	1
3	" "	" "	3	4	2	1	13.33	500	400	1894	"	1
4	Frederick Cook	Rock Creek	1	3	2	1	30	100	560	1892	Oct.	1
3	A. A. Conant	Paint Rock	2	18	6	6	2.64	800	720	1892	Sept.	1
2	Jos. H. Freel	Eagle Creek	2	1	1	1.5	100	500	80	1893	"	1
1	‡Thomas Bros	Spring	.14					100		1892	Oct.	5
4	§Sam'l J. Bartlett	Twin Creek	1.5	5	3.5	2	6	200		1893	Sept.	1

* Acreage obtained by planimeter from plat. † Mining. ‡ 1 in. Pipe. Watering stock. § Unsurveyed.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width.		Depth	Grade			Year	Month	Day
				Top.	Bot'm							
1	John D. Allen	Cottonwood Creek	3	5	3	2	5	$ 500	320	1891	Oct.	5
4	Josiah South	Black Fork River	20	50	40	5	2.5	25,000	37,560	1893	Sept.	30
4	" "	Smith Fork River	1.5	15	10	2	2.5	3,000	5,000	1893	"	30
2	Oakley R. Garvey	Goose Creek	.5	6	3	1	6	300	120	1893	Feb.	20
1	Robt. E. Fitch	Laramie River	6	15	12	5	3	5,000	1,360	1895	May	1
1	Hugh Patton, et al	Muddy Creek	1.5	5	4	1	8	200	130	1892	"	1
1	G. Walter Breon	East Fork Muddy Creek	.75	4	3	1	3.5	250	120	1891	Oct.	1
1	Jno. D. O'Brien	La Prele Creek	2.5	5	4	3	4	1,000	200	1891	April	27
2	E. L. Benton	Sand Creek	3.5	3	2	2	13.33	500	320	1893	"	1
3	Jno. A. Williamson	Grey Bull River	.75	3.66	2	.83	6.66	150	320	1893	May	1
1	O. D. Brooks	La Prele Creek	1.5	8	6	1	2.64	200	360	1892	April	1
1	C. C. Wright	Box Elder Creek	20	26	20	5	2	35,000	25,000			
4	Ole Peterson	Swift Creek	5	8	6	2	4	500	1,520	1894	June	1
4	John C. Phillips	Phillip's Springs	.5	3	2	.5	20	50	80	1892	"	1
1	C. C. Wright	Springs	2					2,500	320	1893	April	1
1	*E. T. Lewis	Medicine Bow	6	20	16	4	5	7,000		1892	June	1
1	Dennis Lemon	La Prele Creek	.75	3	2.5	1	3.2	300	160	1893	May	12
1	M. V. Johnson	Brush Creek	4	7	3	2	7	600	680	1892	Oct.	10
1	Wm. Dolan	Muddy Creek	.5	5	3	1	4	75	40	1892	July	30
4	Eduard P. Steele	East Fork New Fork	1	6	2.5	4	6.66	320	160	1892	May	1
1	Lewis J. Johnson	Lodge Pole Creek	1.25	7	5	1.5	2	270	360	1892	Oct.	1
1	Frank O. Harrison	Three Mile Creek	2.5	10	8	1	20	150	640	1892	June	30
3	John T. Norton	Grey Bull River		40	30	5	6.66	128,000	172,280	1894	July	1
1	Frank A. Watt	Spring Branch	1.5	3	2	1	4.5	75	80	1891	Oct.	1
1	Oscar J. Riggs	North Laramie River	1.5	6	4	2	4		240	1893	July	1
1	James Parr	Cherokee Creek	3	5	4	1	3.2	300	240	1892	"	1
1	H. E. Wheeler	Laramie River	3.5	6	4	1.5	6	500	2,000	1893	Sept.	1

* Placer Mining.

Permits to Appropriate Water.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width. Top.	Width. Bot'm	Depth	Grade			Year	Month	Day
1	Geo. Hunter	Spring Canon Creek	.5	3	2	1	5	$ 200	160	1893	June	1
4	“ “	Hunter's Springs	.5	3	2	1	5	250	160	1893	„	1
1	*Jas. H. Buckley	Porcupine Creek	.095	3	2	2	40	200		1891	Jan.	1
1	John E. Leet	North Platte River	6	12	8	2	5	5,000	1,600	1894	June	1
2	Martin I. Carroll	Little Box Elder Creek	.5	3	2	1	5	500	80	1893	„	1
1	J. R. & E. Slaughter	Deer Creek	5.5	8	6	1	2.5	1,200	360	1892	Aug'st	1
1	†Wm. Symons	Little Ham River		3	2	1	20			1893	June	1
1	Frank White, et al	North Spring Creek	4.25	6	5	1	26.04	650	260	1891	Aug'st	1
2	‡Milton Ashley	Bear Creek	2,500 ft.	2.5	1.5	1	60	1,500		1892	June	4
1	John Housioux	La Prele Creek	1	5	4	1	5.2	400	200	1892	Sept.	1
2	Silas Mortimore	Big Deer Creek	1	6	4	1	3	300	160	1891	“	1
1	Highline Ditch Co	Tributary of Big Creek		14	10	2	13.33	2,000	1,400	1894	“	1
1	V. Goncalves	East Fork of Muddy	.75	4.5	2.5	4	13.33	300	80	1893	“	1
1	“ “	Big Muddy	.625	4.5	2.5	4	13.33	200	80	1893	“	1
1	John W. Marsden	Wagon Hound Creek	.25	5	3	7	2.5	500	40	1892	“	1
1	§J. A. Westfall, et al	West Fork of New Fork	3	16	14	2	12	1,000		1893	“	1
1	E. C. Walker	Willow Creek	2	12	10	1.5	12	800		1893	“	1
4	E. F. Grout	Centennial Creek	2.5	7	5	1	3	400	320	1892	“	1
4	Ervin J. Boyd, et al	Sand Creek	3	6	6	.83	5	300	640	1893	“	1
1	C. C. Hamlin	Springs	.5	6	5	1.5	20	50	320	1892	“	1
1	E. B. Vial	Big Goose Creek	13.6	12	6	3.5	10	10,000	3,880	1894	“	1
4	Gust Barg	Little Laramie River	1	6	4	2	3	500	240			
2	W. H. Brundage	South Fork Stinking Water	3	12	8	4.5	6	1,800	1,340	1894	Sept.	1
1	H. E. Morgan	Stump Creek	1.5	6	5	2	6	200	300	1892	Oct.	1
3	Albert Burrell	Spring	.75	4	1	2	2	100	160	1892	Sept.	1
4	J. S. Richards	Laramie River		24	22	2	1.66	10,000	6,500	1893	“	1
4	‖Jno W. Hatton	Bear River	2	4	3	1	3.5	200	160	1892	Oct.	1

* Mining. † Milling and sluicing. ‡ Placer claims and domestic use. § Unsurveyed land. ‖ Certificate already issued for ditch by Board of Control.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width.		Depth	Grade			Year	Month	Day
				Top.	Bot'm							
2	J. P. Robinson	Tongue River	5.75	4.5	4	1	8	$ 600	840	1893	Sept.	1
2	Geo. Tschirgi	North Pass Creek	3	8	6	2	12	1,000	1,020	1893	"	1
1	Wm. Platt	Tribu'ry of Encampment Creek	3	12	8	2	13.5	2,000	960	1895	"	1
1	" "	Big Beaver Creek	10	20	16	3	5	8,000	12,320	1895	"	1
2	Wm. Hunter	Black Canon Creek	.5	3	2	1	7	200	30	1892	Nov.	1
4	Sam'l V. Hoff	East Fork of New Fork	1.5	6	3.5	3	6.66	500	160	1893	Sept.	1
4	*Geo. G. Griffith	Spring	2					3,000		1893	"	1
4	* " "	"	2					3,000		1893	"	1
1	J. W. Case	Pass Creek	1.25	2.5	2	1.8	2.5	100	80	1892	"	1
2	Jos. H. Freel	Bear Creek	1	3.5	2	1	6	200	160	1893	"	1
1	S. W. Johnson	Medicine Bow	1.5	6	4	4	15	150	320	1893	"	1
2	Frank J. Oschner	Bear Springs	1	2	1.5	1	8	300	80	1893	"	1
2	†Meyer Frank, et al	Salt Creek	4	2	1	1	50	5,000		1892	"	1
1	W. B. Hugus	Spring	.5	2	2	.75	3.5		320	1893	"	1
1	" "	"	.5	2	2	.75	3.5		320	1892	"	1
1	" "	"	.5	2	2	.75	3.5		320	1892	"	1
2	N. Wyo'g Canal Co	Tongue River	54	27	21	6	10	200,000	70,000	1897	Oct.	30
2	‡C. H. Kitcham, Jr et al	Britain Creek		5	3	1	30	150		1893	Sept.	30
2	§Meyer Frank, et al	Springs on Salt Creek	6.5	2	1	1	75	6,000		1893	"	1
2	§ " " "	" " "	5	2	1	1	50	6,000		1893	"	1
4	A. J. Duncombe	Springs	1.14	3	2	1	10	100	120	1892	"	1
2	‡D. G. Frisbie	Branch of Little Ham River	.5	4	3	1.5	30			1894	Jan.	1
4	‡John L. Russell	Bear River	.169	3	2	1.5	11.8	200		1892	Oct.	1
4	J. C. Hamm	Swift Creek	.75	4	3	1	20	300	160	1892	Sept.	1
2	‡Dave Jewell	Bear Run Creek	1.5	2	1.16	2	50	1,000		1892	"	1
2	Elkhorn Irrig'n Co	Tongue River	24	18	10	4	20	100,000	30,000	1897	"	1

* 2 in. Pipe. Mining. † Medicinal use. ‡ Mining. § Domestic use.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	• Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width. Top.	Width. Bot'm	Depth	Grade			Year	Month	Day
2	*J. D. Thurmond	Gold Spring	1	3	2.5	1	4	$ 200		1892	Sept.	1
1	C. Wyo. Canal Co	North Platte River	150	100	80	10	1	2,000,000	229,760	1898	"	1
2	*C. C. Walter	Little Horn River	3	15	9	6		10,000		1893	"	1
3	J. F. Blatner	Springs		1	1	.5	6	50	25	1892	Oct.	1
3	" "	Carter Creek	1	2	2	1	8	100	160	1895	"	1
2	*Ed. H. Seeley	Alkali, Trib. of Big Horn River	1	3	2	2.5	25	500		1891	Dec.	1
2	*J. J. Walter	Porcupine Creek	7	8	4	4		10,000		1893	Sept.	1
3	*Milton Benedict	Swan Creek	.75	4	2	2	8	50	80	1893	Oct.	1
1	Jno. Heller, et al	Deer Creek	1.25	7	5	1	3	400	160	1893	Sept.	1
1	Benj. Hart	Laramie River	3.22	20	10	5	1.5	2,404	660	1894	"	1
1	Benj. A. Hart	Deer Creek	3.675	8	4	2	2	1,593.16	1,500	1893	"	1
1	G. A. Draper	North Platte River	11	36	26	5	1.5	13 500	12,500	1895	"	1
1	Fred Kindt	Spring	2	3	2	1	16	400	200	1893	"	1
2	Highline Ditch Co	Tongue River	12					3,500	950	1895	"	1
2	R. S. Van Tassel	Running Water Creek	1.5	5	3.5	1.5	5	200	280	1892	"	1
2	" "	" " "	2	6	4	1.5	6	300	440	1892	"	1
2	*E. H. Seeley, et al	Porcupine Creek	1	4	2	1.5	18	600		1893	"	1
2	Henry Krohne	" "		4	2	1.5	20	1,000		1893	"	1
2	Willard Franklin	Beaver Creek	3	3	2	2.5	5	350		1893	"	1
4	Geo. W. Merritt	Strawberry Creek	.75	4	3	.5	14	100	40	1893	"	1
4	Robt. Gardner	" "	1	5	4	1.5	14	150	200	1893	"	1
2	F. W. Mondell, et al	Soldier Creek	11	3	1.5	2	12	1,200	1,600	1894	"	1
1	Geo. H. Lawrence	Horse Creek		32	20	4	1	10,000	1,200	1894	Oct.	1
2	*Ed. H. Seeley	Trib. of Big Goose Creek	1.5	3	2	1.5	16	1,200		1893	Sept.	1
2	* " "	" " " "	1.5	3	2	1.5	16	1,000		1893	"	1
1	†Silas Doty	Cherry Creek	1.44	6	3	1.5	4	190	100			
2	*Peter Demple	Tributary of Tongue River	.75	3	2	1.33	40	100		1893	"	1

* Mining. † Cancelled.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width.		Depth	Grade			Year	Month	Day
				Top.	Bot'm							
2	Warren O. Sirrine	Clark's Fork	9	16	10	6	6.66	$ 10,000	1,640	1897	Sept.	1
2	Cecil J. Huntington	Springs	1.25	2	1	1	10	600	120	1894	"	1
4	Frank J. Campbell	Big and Little Sandy River	40	75	45	5	1.5	100,000	15,680			
2	John S. Daugherty	Plum Creek	.5	2	1	.5	8	50	120	1894	Sept.	1
2	Robert C. Hays	Bush Creek	1	2.5	2	1	6	100	200	1894	"	1
4	Geo. A. Crofeet	Black's Fork of Green River	30.5	32	18	7	1.056	85,000	33,520	1895	"	1
2	J. L. Stolts	Springs	5	3	2	1	20	500	3,840			
2	John W. Hooner	Big Horn River	6.5	10	8	1	1.75	3,414.05	2,240			
4	Ole Swenson	Dry Creek	1.5	4	3	1	15	75	240			
1	James Moran	Sand Creek	1.5	6	4	1	3	500	260			
1	Harry E. Daugherty	East Plum Creek	1.5	3	2	.8	6.4	250	280			
1	*Benjamin F. Lowe	Upper Sweetwater River	35	6	4.5	2.5	10	100,000				
4	Chas. Kingston	Hanson Spring Creek	.75	2		1	20	50	40	1893	Sept.	1
1	Patrick Tobin	La Prele Creek	1	7	5	1	3	300	80			
2	Oscar Oberreick	Eisele Creek	2	6	4	4	5	400	160	1893	Sept.	1
1	Patrick J. Hall	Horse Shoe Creek	.75	4	3	1	5	200	120			
1	Anton Sholinski	" " "	2	4	3.5	1.25	7	250	150			
3	William I. Porter	Shell Creek	3.5	24	8	8	7	600	1,460			
4	William O. White	Black Fork Creek	2.5	6	4	1.5	5.28	200	480			
3	†William Sturgis, Jr	Meadow Gulch Spring						1,500				
2	J. C. Barr	Lost Gulch	.75	7	4	2	5.5	250	240			
1	Torval Torgersen	Horse Shoe Creek	1	3	2.5	1	7	300	160			
1	Patrick Freaney	" " "	1.5	4.5	4	1	9	300	165			
3	Mrs. Anne Grant	North Popo Agie River	5	4	3	1	8	650	160			

* Mining and transportation. † Reservoir.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions. Length in Miles.	Width. Top.	Width. Bot'm	Depth	Grade	Estimated Cost.	No. of Acres.	Date of Completion. Year	Month	Day
4	Wm. Fearn	Slough of Bear River	.75	2.5	2	1	13.33	$ 150	60	1892	Sept.	1
1	Jas. D. Negus	Dry Creek	5.41	14	6	4	2	9,000	4,160	1895	"	1
3	Geo. F. Freese	Beaver Creek	1.5	4	3	1	10	300	320	1893	"	1
4	James Davis et al	Dry Creek	1.75	3	3	1.5	50	75	280	1894	"	1
4	C. B. Faler	Pole Creek	2	8	6	4	5	200	320	1894	"	1
1	Frank Starks	Clear Fork of Muddy Creek	1.25	4	2.5	1.5		200	320		"	1
4	Reuben A. Miller	Camp Creek	1	3	2	1	10	150	90	1894	"	1
4	Jas. A. Ellis	North Twin Creek	3.5	8	6	1.5	10	500	760	1894	"	1
4	J. W. Haddenham	Ham's Fork Creek	1.75	4	3	1	10	200	120	1894	"	1
2	Benj J. Scott	Muddy Creek	1.5	4	3	1	12	500	240	1894	"	1
1	Geo. J. Lord	Laramie River	5.5	8	6	1.5	3 168	1,500	160	1895	"	1
1	*C. E. Dodge	Spring	.11				8	500	40	1893	"	1
4	Rose Shurtliff	Shurtliff Creek	1.75	5	4	1	4	200	120	1892	"	1
4	" "	Little Muddy	2	6	4	1.5	10	500	320	1894	"	1
4	Ann Sutten	Ham's Fork Creek	3	12	8	1.5	5	300	400	1895	"	1
1	Jas.L. Fitzsimmons	East Indian Creek	2	3	2	2	13.33	1,000	400	1893	"	1
3	J. F. Bossert	Popo Agie River	1	2	1.5	.66	24	200	160	1894	"	1
1	‖F. G. Woly	Hot Spring	.11	4.5	1	1	5	50		1893	"	1
1	A. W. Phillips	La Bonte and Sand Creeks	5	10	8	2	3	4,000	2,020	1895	"	1
2	‡H. H. Hawkins	Martin Creek	.25	4	3	2	20	2,000				
2	‡ " "	Arena Gulch	.5	4	3	2	20	3,000				
1	Chas. Hecht	Spring Brook	2	5	3	1	150	400	320	1893	Sept.	1
1	L. Sartoris	Rock Creek	19	30	22	3.5	5.28	25,000	15,520	1895	"	1
1	H. H. Wilson	Horse Creek	3	6	3	2	10.48	300	880	1893	"	1
1	Lena Hecht	South Fork Little Laramie	.75	3	2	1	5	100	320	1893	"	1
4	Josiah South	Black's Fork River	20	35	30	3.1	3	50,000	84,560	1894	"	1
4	" "	Ham's " "	10	30	25	1.5	2	5,000	2,560	1894	"	1

* 1 in. Pipe. ‖ Town of Saratoga. ‡ Mining.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width.		Depth	Grade			Year	Month	Day
				Top.	Bot'm							
1	*Wm. Sturgis, Jr	Middle Crow Creek.						$ 67,730		1895	May	1
1	J. J. Wagner	Grand Encampment	.75	18	14	3	13.24	400	240	1894	Sept.	1
1	K. F. Hart	North Platte River	2.5	8	6	1	1	1,300	800	1894	"	1
3	Wm. McNally	Grey Bull River	3.75	6	4	1.5	6	1.500	160	1894	"	1
1	A. A. Clough	Bed Tick Creek		5	3	1	2	500	320	1894	"	1
2	J. G. Bunney	Hay Creek	1.25	3	2	1.5	5.5	500	320	1894	"	1
1	Pioneer Canal Co	Big Laramie River	39	38	30	4	5.39	50,000	56,900			
2	Mary A. Emery	Tongue River	.25	3	2	1.5	40	50	80	1894	"	1
1	James M. Hoge	Big Laramie	20	24	20	2	1.53	50,000	9,280	1893	"	1
1	Le Roy Grant	" "	5	8	6	1	1 6	1,000	2,240	1894	"	1
1	John Ryan	Laramie River	2.75	12	6	3	1.5	1,768	960	1895	"	1
1	D. B. Futts	Red Fern Canon Creek	.5	3	2	1	.5	25	15	1893	"	1
1	" "	Meadow Branch	1.25	3	2	1	5	25	10	1893	"	1
1	C. E. Jones	Laramie River	2	5	3	1	2	100	580			
1	Chas. L. Austin	North Platte River	2.5	15	12	1.5	32	1,700	313	1894	"	1
3	J. F. Blattner	Carter Creek	1	2	1.5	.66	4	100	160	1893	Oct.	1
2	‡Jas M. Taylor	Wolf Creek	4	5	2.5	2	9	1,560	900	1894	Sept.	1
2	A S. Burrows	Big Goose Creek	14				10		14,820	1895	Oct.	1
1	†F. H. Harvey, et al	North Platte River						2,500		1894	"	1
1	Herman Lippoldt	Rawhide Creek	9.5	14	6	4	4	3,000	1,120	1895	"	1
4	M. Christiansen	Nelson Slough	1	6	5	1.5	3	200	160	1894	"	1
4	E. F. Cheney	Big Popo Agie River	9	7	5	2	8	6,000	799			
2	Samuel W. Mason	Beaver Creek	1.5	3	2 5	1	12	300	380	1893	Oct.	1
1	Isaac H. Bashore	Tribu'ry of South Spring Creek	1.5	4	3	1	13.33	100	240			
1	Chas. L. Fox, et al	La Prele Creek	4	8	6	1	3	600	700			
1	Geo. F. Forney	Jack Creek	1	5	3	1		500	200	1893	Sept.	1
1	Geo. S. Martin	Corrall Creek	.5	6	4	2	7	200	80	1894	"	1

* Reservoirs. † Water-power. ‡ Flood-waters.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width. Top.	Width. Bot'm	Depth	Grade			Year	Month	Day
2	*Peter Demple	Big Goose Creek	.1	.3	2	1	40	$ 150		1893	Sept.	1
4	Jonathan Jones	Bear River	13	10	6	2	8	2,000	7,040	1894	"	1
2	*Henry Krohne	Tributary of Tongue River	1	3	2	1	16	300		1893	"	1
2	*Gothard Paul	Springs	1	3	2	1	30	250		1893	"	1
2	* " "	Tributary of Tongue River	3	4	3	1.5	16	800		1894	"	1
1	Wm Curtis	North Platte river	13	30	14	8	1.5	8,000	5,280	1894	"	1
3	Otto Franc	Grey Bull River	2.5	8	6	1.5	10	1,500		1893	Oct.	1
2	A. W. Bebb	Kelly Creek	1.625	3	1.5	1.5	6	2,500	240	1895	Sept.	1
4	Wm. F. Rigby.	Teton Creek	4	15	12	2	5.28	3,000	3,000	1895	"	1
4	" " "	Dry Creek		5	3	1	5.28	250	640	1894	"	1
4	" " "	" "		5	3	1	5.28			1894	"	1
1	F. M. Hamlin	North Platte River	2	8	6	1.5	2.64	1,000	640	1894	"	1
3	†L V. Bond	Slate Creek	1.75	4	2	1	12	400		1893	"	30
1	Jno. Womsley	Horse Creek	2	14	10	2	1.5	3,000	1,920	1894	"	1
4	T. A. Francis	Big Sandy River	2	9	6	1.5	5	1,000	580	1894	"	1
2	Frederick Schmidt	Springs	.75	1.66	1.33	1	53	250	160	1893	"	1
2	Tom Hooper, et al	Sand Creek	7	8	8	2	5.33	5,000	2,200	1895	Oct.	1
1	John L. Snow	Rawhide Creek		8	4	2	3	150	360	1892	Sept.	1
2	John Berry	North Fork Hay Creek	1.5	3	2	2	5	350	640	1893	"	1
2	John Berry.	" " " "	1.5	5	3	2.5	2.25	300	160	1893	"	1
1	*S. W. Downey	Arasta Creek	.128	3	2	2	30	200		1893	"	1
1	* " "	South Brush Creek	.46	3	2.5	2	30	1,000		1893	"	1
1	* " "	" " "	.76	3.5	3	2.5	30	4,000		1894	"	1
2	*F. M. Barrett	Springs	4.5	.5			10.9			1893	"	1
3	Geo. Marquette	Stinking Water	2	6	4	1.5	6	500	160	1894	"	1
1	*S. W. Downey	Arasta Creek	.23	2.5	2	2	62	700		1893	"	1
2	A. B. Ennis	Dry Gulch	1.5	3.5	3	1	25	50		1892	"	1

* Mining. † Mining and milling.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width.		Depth	Grade			Year	Month	Day
				Top.	Bot'm							
1	K. P. DeBardelben	Sage Hen Creek	1	5	3	1	12	$ 125	240	1893	Sept.	1
4	Moroni Clarke	Strawberry Creek	.75	4	3	1	7	75	160	1894	"	1
4	F. Brocken et al	" "	4	8	6	2	25	800	800	1894	"	1
2	John A. Dane	Donkey Creek	1	3	2	1	10	500	160	1895	"	1
3	J. L. Smith	Shell Creek	6	9.5	8.5	1		1,150	1.480	1894	"	1
3	John Ranson	Beaver Creek	1.5	2	1.5	1	5.28	100	120	1894	"	1
4	Job C. Goodman	Mill Creek	2.5	5	3	1.5	5.28	300	320	1894	"	1
4	Morrell Wyman	Ten Sleep Creek	2	12	5	3	3.2	700	100	1895	"	1
4	David O. Roberts	Spring Creek	1	4	3	1	16	50	160	1894	"	4
2	Wm. C. Perry	Trabing Creek	2	3.5	2	1	10	300	160	1894	"	1
3	D. H. Wilson et al	Grey Bull River	1	7	6	1	6	300	440	1894	"	1
4	Chas. Pate	Black's Fork River	1.5	4	3	4	10	200	320	1893	"	1
3	J. M. Weisbrod	Cherry Creek	.75	4	3	1	12	240	120	1893	"	1
2	Abel S. Heald	Cave Creek	.75	3	2	1	20	25	360	1893	"	1
4	S. T. Lindley	Green River	1	9	4	7	3.69	320	160	1894	"	1
2	Robt. F. Long	Granite Creek	1.5	3	2	1	20	150	160	1893	"	1
1	W. H. Thayer	Hunton's Creek	1	8	6	1.5	5.2	450	400	1894	"	1
3	Henry J. Fulton	Rattlesnake Creek	1.5	3	2	.66	25	500	160	1895	"	1
2	*W. S. Metz	Porcupine Creek	1					2,000		1893	"	1
3	T. N. Lish	Beaver Creek	1.5	12	4	4	6	500	440	1894	"	1
3	Geo. A. Bell	No Wood Creek	6	25	8	5	2	2,000	800	1895	"	1
1	Fred George	Trail Creek	.5	6	4	1	3	200	80	1894	"	1
1	S. A. Guthrie	La Bonte Creek	2	10	8	1	3	1,500	320	1895	"	1
4	Peter Toan	East Fork of New Fork	2.5	4	2.5	2.5	5	500	160	1893	"	1
2	§A. M. Carpenter	Sheep Creek	.5	8	6	2	5	200		1893	"	1
2	T. T. Hood	Big Goose Creek	2.5	3	2	1	5	500		1894	"	1
3	Mrs. Maggie Edick	Sheep Creek	2.5	5	4	1.5	6	200	310	1894	"	1

* 8 in. Pipe. Mining. § Mining.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions. Length in Miles.	Width. Top.	Width. Bot'm	Depth	Grade	Estimated Cost.	No. of Acres.	Date of Completion. Year	Month	Day
2	B. F. Emery	Springs	·75	2	1.5	1	60	$ 100	160	1894	Sept.	1
2	L. D. Weist	Big Goose Creek	13.6					8,000	4,960			
5	*B. F. Mills	Beaver Creek	1.75	8	2.33	18.5	50	6,000		1895	Sept.	1
3	Otis G. Grant	Grey Bull River	2.5	4	3	1	6	400	160	1894	"	1
2	John Pearson	Pearson's Springs	1	·5	·5	·5	75	200	1,920	1893	"	1
4	Geo. W. Cooper	Springs in Spring Gulch	100 rds.	2	1.5	.83	20	50	5	1893	Oct.	1
4	" "	Smith's Fork Creek	1.5	5	3	2	5.28	300	320	1893	"	1
1	B. S. Ross.	Springs						3,000		1894	Sept.	1
4	W. A. Cunnington	Mill Creek	2	5	3	1.5	5.28	400	320	1893	Oct.	1
4	John M. Shirk	Black's Fork Creek	4	10	8	1.5	6	700	720	1894	"	1
4	Richard A. Carter	Muddy Creek	3	19	4	5	5	2,000	1,280	1894	"	1
1	Frank P. Parker	Big Laramie River	9	14	10	2	4	4,000	3,680	1895	Sept.	1
2	J. W. Denio	Big Goose Creek	7·75	17	12	3·5	15	20,000	6,200	1895	"	1
1	‡The Hunyadi Mineral Springs San. Association	Salt Creek	1.25	12	6	6	7·5	10,000		1894	"	1
1	Frank W. Mondell	Oil Creek	3·5	5	3	2	25	2,000	1,760	1894	"	1
3	Ozio P. Davis	Wood River	2	4	3	1	5	250	100	1895	"	1
1	Isaac H. Bashore	Spring Creek	·375	3·5	3	·5	13	50	40	1893	"	1
2	William P. Ray	Prairie Dog Creek	·75	3	2	1	15	60	20	1893	"	1
1	Patton & Beggs	Big Muddy	1.5	5	4	1	1	200	120			
4	Thomas Widdop	Barret Fork Creek	1.5	3	2	1	10	160	160	1893	Oct.	1
4	A. C. Call	Bear River	1.5	20	20	4	4	1,500				
4	Daniel Wash	Black's Fork Creek	1.25	3	2	1	6	150	80			
4	Thomas W. Anson	Smith's Fork Creek	2.5	3	2	1	10	100	120	1893	Oct.	1
1	Harry B. Henderson	Springs	3·5					10,000		1894	Sept.	1

* Mining. ‡ Medicinal and domestic use.

PERMITS TO APPROPRIATE WATER.—*Continued.*

Div. No.	Name of Applicant	Source of Appropriation.	Dimensions.					Estimated Cost.	No. of Acres.	Date of Completion.		
			Length in Miles.	Width. Top.	Width. Bot'm	Depth	Grade			Year	Month	Day
1	Geo. S. Martin	Corrall Creek	.25	6	3	3	7	$ 50	40	1893	Sept.	1
1	" "	" "	.5	4	3	2	7	150	80	1892	"	1
1	" "	" "	.75	4	3	2	7	100	80	1892	"	1
4	Josiah South	Black Fork River	15	28	25	1		15,000	24,320	1895	"	1
1	Thomas Bros.	Lodge Pole Creek	1.5	6	4	1.5	4	100	440	1894	"	1
4	Sarah A. Wright	Ham's Fork	1	4	3.5	1	6	150	120	1893	"	1
2	Flora E. Wiest	Mt. Hope Springs	1.5					500	13	1896	"	1
3	Benj. F. Martin	Trout Creek	3.5	4	3	1	7	400	200	1894	"	1
1	Frank E. Bethea	La Prele Creek	4	8	6	1	3	700	385	1894	"	4
1	Frank Gore et al	" "	4	8	6	1	3	1,000	360	1894	"	1
1	" "	" "	2	7	5	1	5	600	400	1894	"	1
1	Frank E. Bethea	Branch of La Prele Creek	.33	3	1.5	1	5	50	6	1892	"	1
4	Mary E. Carter	Black Fork	12	18	14	2	4	20,000	9,580	1895	"	1
3	B. D., J. C. & J. F. Stone	Big Horn River	4.5	20	6	7	5	2,000	880	1895	"	1
4	Wm. P. Nebecker	Bear River	11	15	9	3	5.28	10,000	3,520	1895	"	1
4	Wm. A. Johnston	Smith's Fork	1.25	3	2	1	6	60	160	1892	"	1
3	James E. Wilson	Stinking Water	3.5	12	6	1.5	4.5	1,500	520	1895	"	1
4	Hans J. Nelson	Swift Creek	7	10	9	1	4	1,000	4,480	1895	"	1
1	Geo. LeVasseur	Moss Agate Creek	.25	4	2	1	5	40	40	1893	"	1
1	" "	Station Creek	.25	4	2	1	5	30		1893	"	1
4	Jas. L. Bell	Little Muddy	1	4	3	1.5	3	100	160	1892	"	1
2	†Edwin F. Arthur	Porcupine Creek	.5	4	3	2	25	3,000		1893	Oct.	1
2	‡ " "	" "	.25	6	4	4	20	500		1893	"	1
1	§John Brownlee	Cherokee Creek	1	5	3	1	20	50		1892	Sept.	1
4	Jos. M. Miller	Willow Creek	.75	3.5	2.5	4	3	75	80	1892	"	1
1	Frank O. Harrison	Rock Creek	.25	5	4	2	15	50	320	1893	"	1

† Mining. ‡ Milling. § To fill reservoir.

SUMMARY.

Total number of Permits issued - -	371
Total number of Acres to be Irrigated -	1,264,943
Total estimated Cost - - -	$7,026,704

TABLE NO. 2. STREAM GAUGINGS, 1891. DIVISION NO. 1.

Date		Name of Stream.	Where Gauged.	Area of Cross-section.	Mean Vel. ft. per sec.	Discharge in cubic feet.	General Remarks.
Month	Day						
May	28	Little Laramie	J. May's Bridge	172	3.27	562	
June	6	Seven Mile					Discharge June 6, 40 cu. ft. Approximately dry Aug. 28
"	9	Four Mile	T. Fee's Ranch			24.5	T. Fee's Ditch. Stream dry Aug. 28
"	12	Dutton Creek	Sutpian's Ditch			21.61	Stream dry Aug. 28.
"	30	Pass Creek	Lufkin Ranch	35.96	.658	23.66	Has had cross-sec. 46 sq. ft. this spring
"	30	Bush Creek	" "	2.4	4.27	10.25	Both discharge into Pass Creek below point of gauging on Pass Creek
"	25	Rattlesnake Creek	Above all Ditches	6.5	1.88	12.22	
July	17	Jack Creek	At Forks	26.78	.52	13.93	Has had cross-sec. of 61 ft. this spring
"	22	North Spring Creek	A. McPhail's	16.45	.92	15.14	
"	24	South " "	Mouth of Canon	7.5	2.05	15.375	The total of these three gives the discharge of South Spring Creek July 24.
"	24	Canon Ditch		1.125	1.1	1.24	
"	24	South Spring Creek D.		4 2	2	8.40	
"	31	Cow Creek	Below mouth of Calf Creek	5.1	1 54	7.85	The total of these two gives the discharge of Cow Creek July 31.
"	31	Highland Ditch		2.7	2.23	6.02	
August	1	Grand Encampment	County Bridge	122.5	1.23	151	Below all ditches.
"	6	Brush Creek	Condict's Ranch	24	1.43	34.32	
Octob'r	19	Chugwater					Stream dry in some places on this date
June	3	North Platte River	Bridge at Douglas	2507.45	4.04	10130	
Octob'r	13	" " "	Fairbanks			579	
Decem	4	" " "	Bridge at Douglas			807	
Novem	6	Laramie River	Wood's Landing	42	1.78	74.93	

STREAM GAUGINGS, 1891—*Continued.* DIVISION NO. 2.

Date		Name of Stream.	Where Gauged.	Area of Cross-Section.	Mean Vel. ft. per sec.	Discharge in cubic feet.	General Remarks.
Month	Day						
June	29	Little Goose Creek	Cross-bridge, Davis Ranch	85.4	1.28	109.38	App. diversion Sta. 50 cubic feet
July	5	Big Goose Creek	Beckton Bridge	87.6	1.93	168.82	“ “ “ 40 “
“	29	Tongue River	Dayton Bridge	126	1.52	191.6	“ “ “ 40 “
“	13	Big Rapid Creek	Above flume of Big Goose & Beaver Ditch			35.93	No diversion above
June	3	Clear Creek	Weir in Canon	69	8	552	Little diversion above
August	3	“ “	“ “ “	24	3.02	72.48	“ “ “
June	13	Cruise Creek	Above diversion	.75	.6	.45	
“	17	Jackson Creek	Above Rapid Creek	1.64	2	3.28	App. 3 cu. ft. diversion above
“	6	Hurlburt Creek	Above diversion, at base of mountains	.5	2	1	
July	7	Little Rapid Creek	Base of mountains	.96	2.92	2.8	
June	24	Trabing Creek	S. D. Hayes' Ditch	1.75	2.2	3.85	This ditch took all the water in creek
July	7	Hanna Creek	Pioneer Ditch	.7	2.96	2.07	“ “ “ “ “ “
“	7	Beaver Creek	Beaver Ditch	.45	1.6	.72	“ “ “ “ “ “
“	15	Park Creek	Above diversion	1.75	2.42	4.24	
“	21	Soldier Creek	“ “ in Canon	2	2.22	4.44	
“	25	Columbus Creek	Above H. G. of 5-mile Ditch	7.9	1	7.9	
“	26	Amsden Creek	Fredrickson's Ditch, 200 ft. down stream	3	1.75	5.25	
July	28	South Fork Tongue River	Just below mouth of flume at Burkitt's Flume			17.69	
August	12	Rock Creek	Just below forks	21.25	.8	17	
Octob'r	5	Hat Creek	Sec. 19, T. 35 N., R. 62 W.	1.573	1.156	1.818	Taken by W. D. Pease
“	5	“ “	Sec. 7, T. 35 N., R. 62 W.	1.648	1.605	2.645	“ “ “ “

TABLE NO. 3. STREAM GAUGINGS, 1892. DIVISION NO. 1.

Date		Name of Stream.	Where Gauged.	Area of Cross-section.	Mean Vel. ft. per sec.	Discharge in cubic feet.	General Remarks.
Month	Day						
June	7	Big Laramie River	Wood's Landing	237.5	6.6	1,570.9	
"	7	Little Laramie	J. May's	166	3.72	617.86	
August	28	Savery Creek	Above 15 miles from mouth			15	Channel of Stream dry at mouth
"	31	Snake River	1000 ft. e. of bridge at Perkins'	25.5	2.83	72.17	
"	31	Muddy Creek	L. M. Boner's			.5	" " " "
"	27	Sandstone Creek	Near Mouth	3.6	1.1	3.96	Tributary of Savery
Septem	2	Separation Creek	P. Anderson's, 14 miles from Rawlins				No water in creek
"	5	Cow Creek	Near head of Doty Ditch	.84	.62	.52	
Octob'r	25	Big Laramie River	Near Laramie City	26.6	2.36	62.69	
"	28	Horse Shoe Creek	Jas. Moran's Crossing	8.7	1	8.7	Channel of stream dry near mouth
Novem	5	North Platte River	Bridge at Douglas	194.6	3.05	594.59	
"	8	East Muddy Creek	Near Breon's	3.85	1.33	5.13	
"	11	Muddy Creek	Near Brook's	4	1.33	5.32	Tributary of North Platte
"	12	Beaver Creek	Above head of Brook's Ditch No. 1			6.83	" Muddy
"	16	Clear Fork Creek	Hat 6 Ranch	2.8	2.3	5.44	" "
"	19	Goose Creek	Sec. 25, T. 33, R. 78			.75	" Clear Fork
"	21	Dry Muddy Creek	Nicholson's Crossing			.75	" North Platte
"	22	Cloud Creek	Greenlaw's "			.75	" " "
"	22	Elkhorn Creek	Stroud "			6	" " "
"	24	Garden Creek	C. Y. Ranch	.45	3.875	1.74	Channel of stream dry at mouth
"	26	Big Squaw Creek	Sec. 24, T. 33, R. 80			1	
"	26	Little Squaw Creek	Sec. 30, T. 33, R. 79				No water in creek
"	27	Spalding Creek	Sec. 5, T. 32, R. 80			.5	
"	28	Loomis Creek	Sec. 1, T. 32. R. 81			.75	Channel of stream dry at mouth

STREAM GAUGINGS, 1892—*Continued*. DIVISION NO. 3.

Date		Name of Stream.	Where Gauged.	Area of Cross-Section.	Mean Vel. ft. per sec.	Discharge in cubic feet.	General Remarks.
Month	Day						
July	1	*Big Goose Creek	Sheridan Bridge	235.12	4.29	1,009.05	Cross-sec. is sum of two channels, larger channel, max. vel. 9.15, smaller 10.84; cross-sec. smaller 52.8.
June	19	Beaver Creek	Hailey's	25.35	2.78	70.39	
"	23	Squaw Creek	Lynch's Crossing	7.6	3.4	25.83	
"	27	Mexican Creek	Where Brown Jug Ditch crosses Creek	3.33	1.75	5.83	
July	5	North Fork Popo Agie R.	Milford Bridge	175.35	3.53	619.13	
"	10	Big Horn River	Ferry at Alamo	2055.79	4.72	9,706.85	
"	11	Little Canon Creek	Above h'd Little Canon ditch	2.66	1.9	5.05	
"	11	Thompson Creek	Above head Jolliff Ditch			.25	
"	12	Hornecker Creek	E. Hornecker's Bridge	7.58	2.1	15.92	
"	14	Stinking Water River	Bridge at Corbett	800	6.22	4,973.88	
"	20	Middle F'k Popo Agie R.	Range Line 99-100	107.85	3.18	343.16	Five channels
August	4	Little Popo Agie River	J. Faris' Ranch	48.1	1.4	67.34	
"	5	Willow Creek	Ab've Himmelsbaugh R'nch	1.2	3.1	3.72	
"	8	Cherry Creek	Above H. G. Cherry Creek Ditch	3.28	2.76	9.05	
"	8	Red Canon Creek	Above Wagner Ditch	2.25	2.4	5.4	
"	8	Barrett Creek	Above Barrett Creek Ditch No. 1	2.24	2.61	5.85	
"	11	Twin Creek	Above h'd Schlichting Ditch	1.64	1.75	2.87	
"	12	Hall Creek	Above Geo. Tweed Ditch	.72	1.5	1.08	
"	15	Deep Creek	Above Deep Creek Ditch No. 1	1.89	1.7	3.21	
"		Beaver Creek	Above McDougal's Ranch	11.66	.33	3.85	
Octob'r	26	†Green River		278	2.54	706.12	

* Division No. 2. † Division No. 4.

TABLE No. 4. List of Certificates of Appropriation of Water Division No. 1. Issued by the Board of Control at the March meeting, A. D. 1891.

LITTLE HORSE CREEK.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Acres Irrigated.	Am't of Appropr'n c. ft. p'r sec	Am'unt prev'sly appr'ted
1	Mills Creek Ditch No. 1	John H. Gordon	1874	30	43	
2	Gordon Herrick Creek Ditch No. 2	" "	April '80	50	.72	.43
3	" " " " " 1	" "	1881	50	.72	1.15
4	" Little Horse Creek Ditch No. 2	" "	Spring '82	100	1.43	1.87
5	" Mills Creek Ditch	" "	" "	50	.72	3.30
6	Bull Springs Ditch	James R. Johnston	1883	35	.50	4.02
7	Johnston Ditch	" "	Spring '83	20	.30	4.52
8	Springvale Ditch	Springvale Ditch Co.	Feb. 1884	700	10	4.82
9	Johnston Ditch	James R. Johnston	Spring '85	540	7.71	14.82
10	Wood & Lykins Ditch	Little Horse Creek Irrigation Co.	" "	1,200	17.14	22.53
11	Johnston Ditch No. 2	Lizzie D. Johnston	May 1885	20	.12	39.67
12	Gordon Mills Creek Ditch No. 3	John H. Gordon	1886	100	1.43	39.79
13	Johnston Ditch	James R. Johnston	1886	363	5.17	41.22
14	Wood & Lykins Ditch	Little Horse Creek Irrigation Co.	1886	280	4	46.39
15	Gordon Little Horse Creek Ditch No. 3	John H. Gordon	Aug. 1887	25	.31	50.39
16	" " " " " " 4	" "	" "	25	.31	50.70
17	Kracaw Ditch No. 2	C. E. Kracaw	April '88	30	.43	51.01
18	" "	" "	Sept. '88	80	1.14	51.44
19	Wood & Lykins Ditch	Little Horse Creek Irrigation Co.	1890	160	2.28	52.58
20	Kracaw Ditch No. 3	C. E. Kracaw	Dec. '90			54.86

TABLE No. 5. List of Certificates of Appropriations of Water in Water Division No. 2. Issued by the Board of Control at the March meeting, 1891.

SMITH CREEK.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Acres Irrigated.	Amount of Appropr'n. c. ft. p'r sec	Am'unt prev'sly appr'ted
1	The Huntington & Smith Smith Creek	A. Frisbie, Mrs. Marks R. F. Mock	Spring '81	440	6.28	
2	Hewes	D. A. Smith & J. P. Marks	April '82	160	2.28	6.28
3	Ross No. 1	John Ross	May '82	125	1.78	8.56
4	Owens No. 1	Frank Owens	Oct. '82	80	1.14	10.34
5	Ross No. 2	John Ross	March '84	20	.28	11.48
6	Hill Slide	Geo. W. Carroll	April '84	115	1.64	11.76
7	Owens No. 2	Frank Owens	Spring '86	40	.57	13.40

WOLF CREEK.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Acres Irrigated.	Amount of Appropr'n. c. ft. p'r sec	Am'unt prev'sly appr'ted
1	Hardin	Hardin, Campbell & Co.	Sept. '81	540	7.71	
2	West Wolf Creek	McGrath & Nichols	Nov. '81	315	4.50	7.71
3	Garrard	P. Robinson, Isaac Dye, Chas. H. Leach, Wm. Garrard, John Snyder	April '83	750	10.71	12.21
4	Campbell	Hardin, Campbell & Co.	Fall '83	480	6.86	22.92
5	Shields	W. G. Aber	April '84	50	.71	29.78
6	Old Reliable	Jas. Simonton, Wm. Curtis, Robert Stewart, Henry Jordan	May '84	210	3.00	30.49
7	Red Canon	A. O. Devoe	June '84	30	.43	33.49
8	Grinnell Live Stock Company's Ditch	Grinnell Live Stock Co.	Sept '84	3,000	42.86	33.92
9	Decker	Chas. L. Decker	Sept. '84	400	5.71	76.78
10	East Wolf Creek	R. McGrath, H. J. Nichols, A. M. Carpenter	Oct. '84	690	9.87	82.49
11	Stewart	E. A. Whitney, G. H. Carter,	Dec. '84	750 200	13.57	92.36
12	Extension of West Wolf Creek Ditch	Powder River Cattle Co.	June '85	200	2.86	105.93

WOLF CREEK.—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Acres Irrigated.	Amount of Appropr'n. c. ft. p'r sec	Am'unt prev'sly appr'ted
13	Wolf Creek Canon	A. O. Devoe	Nov. '85	300	4.28	108.79
14	Nichols & Oberich	H. J. Nichols, Aug. Steil, Mrs. McGrath	April '86	100	1.42	113.07
15	Old Reliable, 1st Enlargement	Robert Stewart	Aug. '86	50	.71	114.49
16	Dye & Shields	Geo. W. Shields and Isaac Dye	March '87	200	2.86	115.20
17	Red Canon No. 2	A. O. Devoe	April '87	30	.43	118.06
18	Shields Ditch, 1st Enlargement	W. G. Abers	1887	40	.57	118.49
19	Windy Canon	A. O. Devoe	April '88	100	1.42	119.06
20	Shields Ditch, 2nd Enlargement	J. A. Abers	1889	25	.36	120.48
21	Gibbons	Henry Jordan	1889	50	.71	120.84
22	Wolf Creek Canon Ditch, 1st Enlargement and Extension	Sarah Merifield, Sarah Jane Merifield, Martha Merifield, W. H. Merifield	April '90	450	6.42	121.57
23	Shields Ditch, 3d " " "	W, G. Abers, J. A. Abers	1890	350	5	127.95
24	Nichols & Oberich	H. J. Nichols, Aug. Steil, Mrs. McGrath		285	4.07	132.97

TABLE No. 6. List of Certificates of Appropriations of Water in Water Division No. 2. Issued by the Board of Control at the March meeting, 1892.

LITTLE GOOSE CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Hanna	O. H. Wallop	May '79	Irrigation	.42	30
2	Coats	C. A. Farwell	" "	"	.36	25
3	Spring No. 1	O. H Wallop	" "	Domestic	1	
4	" " 2	" "	" "	Irrigation	.21	15
5	Gerdel	P. H. Gerdel	April '80	"	1.86	130
	"	Jas. Meal	" "	"	1.43	100
	"	M. L. McKee	" "	"	1.86	130
	"	H. B. Paxton	" "	"	1.79	125
	"	B. F. Martin	" "	"	2	140
	"	J. B. Culver	" "	"	2	140
6	D. Cross No. 2	W. F. Davis	June '80	"	.07	5
7	" " 3	" "	" "	"	.07	5
8	McCormick Cruise Creek	John McCormick	" "	"	1.07	75
9	Negro John	W. E. Jackson	April '81	"	.64	45
10	East Side	Edwin Field	" "	"	.86	60
	" "	J. M. Colrider	" "	"	2.15	150
	" "	John McCormick	" "	"	2.87	200
	" "	C. A. Farwell	" "	"	1.14	80
	" "	J. B. Harbinson	" "	"	1.29	90
	" "	C. W. Skinner	" "	"	1.29	90
	" "	Levi Woods	" "	"	2.43	170
	" "	J. H. Sackett	" "	"	1	70
11	Pioneer Nos. 1 & 2	G. J. Lanbrigger	May '81	"	.03	2
12	Reed	Henry A. Coffeen	" "	"	4.29	300

Little Goose Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
12	Reed	L. H. Brooks	May 1 '81	Domestic	.71	
13	Miller	J. J. Wagner	May '81	Irrigation	.21	15
14	Pioneer from Hanna Creek	H. T. Hill	" "	"	.86	60
15	Garden	W. M. Spear	" "	"	.09	6
16	Willow	Willis Spear, Jr.	" "	"	.28	20
17	Pocatello	W. M. Spear	June '81	"	1.21	85
	"	P. L. McKee	" "	"		
18	Choke Cherry	Edmund Hurlbut	" "	"	.14	10
19	D. Cross No. 4	W. F. Davis	July '81	"	.14	10
20	Little Goose Creek	Grinnell Live Stock Co.	Oct 1 '81	"	13	600
21	Burn Cleuch	George Brundage	" 19 "	Do., Irri., Stock	4	275
	" "	J. D. Adams	" 29 "	Same	12	840
22	Upper Goose Creek	Upper Goose Irrigation Co.	Nov. '81	Irrigation	1.5	105
23	Upper East Side	E. S. Perry	Dec. '81	"	4.58	320
	" " "	John W. Austin	" "	"	1.71	120
	" " "	Charles Becker	" "	"	2	140
	" " "	J. H. Kemp	" "	"	.86	60
24	Park	A. Lambrigger	April '82	"	1.14	80
25	Side Hill	D. T. Hillman	" "	"	.14	10
26	Rapid	E. S. Perry	May '82	"	1.43	100
27	Muskrat	W. M. Spear, Sr.	Spring '82	"		
	"	W. Spear, Jr.	" "	"	.57	40
	"	J. W. Curtis	" "	"	.86	60
28	Lime Kiln	D. T. Hillman	June '82	"	.14	10
29	D. Cross No. 1	W. T. Davis	March '83	"	5.71	400
30	Red Hill	D. T. Hillman	April '83	"	1.07	75
31	Hurricane	Thos. Brundage	June '83	"	1.29	90

Little Goose Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
31	Hurricane	Geo. Brundage	June '83	Irrigation	1	70
	"	L. H. Brooks	" "	"	.86	60
	"	John E. Early	" "	"	1.43	100
32	Colorado Colony	Colorado Colony Ditch Co.	July '83	"	90.3	6320
33	S. D. Hays	W. M. Spear, S. D. Hays	" "	"	.25	18
34	Austin No. 1	J. W. Austin	March '84	"	.28	20
35	West Side	J. H. Sackett	May '84	"	.11	8
	" "	J. J. Wagner	" "	"	1.14	80
	" "	Val. Reece	" "	"	2	140
	" "	P. H. Gerdel	" "	"	1.71	120
	" "	C. W. Kinner	" "	"	.21	15
36	Nameless	H. T. Hill	Spring '84	"	1.14	80
37	Field	Edwin Field	June '84	"	.5	35
38	White	J. W. Curtis	March '85	"	.14	10
39	Sackett	J. H. Sackett	May '85	"	.28	20
40	Austin No. 2	J. W. Austin	June '86	"	.71	50
41	Choke Cherry Gulch	J. D. Adams	April '87	"	.14	10
42	Stewart	John Stewart	May '87	"	.36	25
43	Robinson	R. M. Hays	Sum'r '87	Do., stock, Garden	.04	2
	"	Martin L. McKee	" "	Irrigation	.01	1
44	Red Hill (Extension)	P. L. McKee	Nov. 14 to 18 1887	Irrigation	4.29	300
	" " "	J. Willets				
	" " "	M. Wood				
	" " "	Spear & Son				
	" " "	G. W. Crogan			.46	32
45	Last Chance	J. H. Sackett	March '88	Stock, Irrigation	.43	30

Little Goose Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
45	Last Chance	J. W. Curtis	March '88	Stock & Irrigation	2.14	150
	" "	A. Zullig	" "	Same	5.71	400
	" "	P. H. Gerdel	" "	Same	4.29	300
	" "	J. J. Wagner	" "	Same	.57	40
	" "	J. F. Lewis	" "	Same	.71	50
	" "	J. H. Kemp	" "	Same	.71	50
46	Kemp Creek No. 2	W. M. Spear	1888	Irrigation	.36	25
47	S. D. Hays	S. D. Hays	1889	Domestic Irrigation	.71	40
	S. D. Hays	W. M. Spear	1889	Irrigation	.26	10
48	West Side	J. H. Sackett	1889	"	.29	20
49	Culver	T. H. Swan	Sept '90	"	.57	40
	SOLDIER CREEK AND TRIBUTARIES.					
1	P. K. No. 2	Patrick Bros.	June '81	Irrigation	2.28	160
2	Beck's No. 4	George T. Beck	" "	"	3.85	270
3	Ashley & Kern	John Kern	April '84	"	1.43	100
	" "	Philip Wolstron	" "	"	1	70
4	Soldier Creek	Grinnell Live Stock Co.	June '84	"	.57	40
5	Joe Allen	Joseph W. Allen	Feb'y '85	"	1.71	120
6	Viall & Kilbourne	E. B. Viall	March '85	"	1.78	125
	" "	Larry Warren	" "	"	1.43	100
7	P. K. No. 1	Patrick Bros.	Oct. '85	"	4.57	320
8	P. K. No. 8	" "	" "	"	2.85	200
9	Downer	George W. Downer	Oct. '86	"	.57	40
10	Kueny & Kern	Mrs. Mary A. Kueny				
	" "	Oliver Kern				

Owners of No. 10 allowed further time to complete appropriation. Proof to be submitted to Division Supt. on or before Mar. 1, 1893.

BIG GOOSE CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Beck's No. 3	George T. Beck	June '81	Irrigation	.86	60
2	" " 2	" "	May '82	"	2.14	150
3	Beaver	F. E. Wanderlick	Aug. '82	"	.57	40
	"	Curtis & Frank P. Russel	" "	"	1.71	120
4	East Big Horn	Samuel A. Iden	Sept. '82	"	1 14	80
5	Flume	Henry Held	Oct 12 '82	"	6.86	480
6	Robinson & Hardee	A. H. Robinson	" 15 "	"	2.14	150
	" "	H. N. Robinson	" " "	"	1.43	100
7	The Daisy	Wm. Timm	" 19 "	"	.71	50
	" "	George Miller	" " "	"	1.14	80
	" "	John D. Loucks	" " "	"	1.43	100
	" "	Sylvester Hardee	" " "	"	2.14	150
8	The Owl	Wm. Timm	" 20 "	"	1.43	100
	" "	Herman Otto	" " "	"	1.29	90
	" "	J. D. Loucks	" " "	"	.57	40
9	N. B. Held	Henry Held	Nov. '82	"	2.14	150
10	No. 9	Washington Thompson	Fall '82	"	1.14	80
	"	J. P. Robinson	" "	"	.14	10
	"	Geo. T. Beck	" "	"	2	140
	"	Levi Beans	" "	"	2.29	160
	"	Tony Yetzer	" "	"	1.86	130
11	Sheridan Town	Town of Sheridan	Nov. '82	Irrigation		
				Domestic	16	
12	Beckton Mill	Geo. T. Beck	June '83	Milling	37.5	
13	Elkhorn	J. P. Robinson	Nov. '83	Irrigation	1.71	120
14	Beck's No. 7	Geo. T. Beck	May 1 '84	"	.57	40
15	Rapid Creek Canon No. 1	W. J. Thorn	May '84	"	1	70
16	Beck's No. 6	Geo. T. Beck	June 2 '84	"	1.5	105

Big Goose Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
17	Barr	Edward Warnstaff	June '84	Irrigation	.26	18
18	Beck's No. 1	George T. Beck	" "	"	10.14	710
19	" " "	" "	July '84	"		
20	Rocky	Philip Kane	Nov. '84	"	1.43	100
21	Manning Nos. 1 & 2	C. H. Manning	1884	"	.1	10
22	Cave No. 1	Abel S. Heald	March '85	"	.4	25
23	Williams	Frank Bradbury, Argus B. Ennis	" "	"	1.57	110
24	West Big Horn	Samuel A. Iden	" "	"	1.14	80
25	Rapid Creek Canon No. 2	W. J. Thorn	April '85	"	1	70
26	Cave No. 2	Abel S. Heald	June 85	"	.4	25
27	Sheridan Mill	Sheridan Milling Co.	Aug. 1 '85	Irrigation Milling	132	3
28	Big Goose & Beaver	Philip Kane	" 29 "	Irrigation	1.43	100
	" " "	Joseph Morrow	" " "	"	.86	60
	" " "	F. E. Wanderlick	" " "	"	.57	40
	" " "	W. H. Hammontree	" " "	"	2.29	160
	" " "	P. S. Morrow	" " "	"	.65	45
	" " "	Samuel A. Iden	" " "	"	9.15	640
	" " "	Isaac Zullig	" " "	"	.71	50
	" " "	A. Miller	" " "	"	3.15	220
	" " "	Silas Miller.	" " "	"	1.71	120
	" " "	Wm. Scaramellini	" " "	"	1.43	100
	" " "	Alpheus Morrow	" " "	"	.65	45
	" " "	C. C. Robinson	" " "	"	4.57	320
	" " "	Edward Warnstaff	" " "	"	1.65	115
	" " "	Herman Timm	" " "	"	2.14	150
	" " "	John Devier	" " "	"	2.29	160
	" " "	Anthony Yetzer	" " "	"	.86	60

Big Goose Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
28	Big Goose & Beaver	Stephen W. Hall	Au. 29 '85	Irrigation	6.28	440
	" " "	John A. Blake	" " "	"	2	140
	" " "	George W. Jeurich	" " "	"	3.42	240
	" " "	Chas. H. Oser	" " "	"	2.85	200
	" " "	C. H. Manning	" " "	"	.57	40
	" " "	Truman D. Page	" " "	"	2.28	160
	" " "	Frank Bradbury	" " "	"	2.28	160
	" " "	Herman Otto	" " "	"	.71	50
	" " "	Hiram B. Burgess	" " "	"	.85	60
	" " "	Matilda A. Morrow	" " "	"	2.28	160
	" " "	Jens A. Findahl	" " "	Irrigation Domestic	4.10	280
	" " "	John S. Addleman	" " "	Irrigation Domestic	1.5	100
	" " "	Helen Towers	" " "	Irrigation	2.85	200
	" " "	Wm. B. Addleman	" " "	"	4.28	300
	" " "	Appropriation for domestic and stock purposes.			2	
29	Beck's No. 8	George T. Beck	Aug. '85	Irrigation	.42	30
30	Beaver Chief	Herman Timm	Sum'r '85	"	.85	60
31	The Daisy, 2nd appropriation	James M. Works	Oct. '85	"	2.57	180
32	Peralto	J. P. Robinson	Nov. '85	"	4.28	300
	"	O. H. Wallop	" "	"	4.57	320
	"	G. W. Peterson	" "	"	.71	50
	"	W. Spear & Sons	" "	"	.57	40
	"	Chas. F. Jackson	" "	"	6.85	480
	"	Hunter Smith	" "	"	.71	50
	"	Denis & Barr	" "	"	7.42	520
	"	Matthew Oser	" "	"	4.57	320

Big Goose Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
32	Peralto	R. D. Darlington, A. Darlington	Nov. '85	Irrigation	2.28	160
	"	Avon Darlington, R. M. Darlington	" "	"	1.14	80
	"	W. J. Croghan	" "	"	5.14	360
	"	W. W. Nottingham	" "	"	4.57	320
	"	J. A. Wimer	" "	"	4.57	320
	"	R. Cornwall	" "	Irrigation Domestic Stock	3	200
33	Jeff Davis	Mrs. Catherine M. Henry	July '86	Irrigation	.35	25
34	Boulder	J. S. Snodgrass	Oct. '86	"	1.42	100
35	Beaver	C. H. Manning	1886	"	.14	10
36	Diamond	Philip Kane	Spring '87	"	3.57	250
37	Little Rapid	C. H. Manning	" "	"	.57	40
38	Red Canon	Abel S. Heald	" "	Irrigation Stock	.1	1
39	Goose Canon	Abel S. Heald	April '88	Irrigation Domestic	.5	25
40	Curtis & Russell	Curtis & Russell	April '88	Irrigation	1.14	80
41	Cole Younger	Catherine M. Henry	May '88	"	.21	15
42	Rhodes	Rhodes Farm Co.	1888	Irrigation Townsite Domestic	1	40
43	Goose Canon, 2nd appropriation	T. M. Culbertson	1891	Irrigation	.71	50

The owners of the Peralto and Big Goose & Beaver Ditches are allowed further time to complete appropriation. Proof to be submitted to the Division Superintendent on or before March 1st, 1893

TONGUE RIVER AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Tongue River No. 1	Henry Baker	Spring '82	Irrigation	2.43	170
	" " "	David A. Smith	" "	"	1.43	100
	" " "	Wm. N. Robinson	" "	"	3.21	225
2	OZ & K	Hurlbut Land & Cattle Co.	April '83	Domestic Stock Irrigation	6.74	458
	" "	Windsor Kemp & Co.	" "	Irrigation	9.43	660
3	South Side Tongue River	Mrs. Sophie Huntington	Spring '84	"	1.43	100
	" " " "	Capt. F. O. Grissell	" "	"	.07	5
4	Thorn Bros.' enlargement of Tongue R. No. 1	Thorn Bros.	Sum'r '84	"	.5	35
5	Canon Ditch	Capt. F. O. Grissell	March '85	"	.71	50
6	Tongue River Ditch Company's Ditch	S. H. Early	Au. 29 '85	"	2.85	200
	" " " " "	John A. Moore	" " "	"	1.71	120
	" " " " "	S. J. Inglefield	" " "	"	1.43	100
	" " " " "	J. E. Eychaner	" " "	"	2.57	180
	" " " " "	R. C. Hays	" " "	"	1.64	115
	" " " " "	G. B. and T. E. Masters	" " "	"	2.85	200
	" " " " "	Hamilton Wort	" " "	"	1.14	80
7	Turner & Eychaner	E. H. Turner	May 2 '86	"	.57	40
8	Robinson No. 1	Wm. N. Kobinson	June '86	Domestic Irrigation	1.84	115
9	Ash Creek	W. E. Wagncr	April '87	Irrigation	1.43	100
10	Mill Ditch or Race	Henry Baker	May '87	Milling & Manufacturing.	9	
11	OZ & K, 2nd Appropriation	Mrs. Amanda McNutt	Spring '88	Irrigation	1.14	80
	" " " "	C. C. Stevens	" "	Do., Irri., Stock	1.91	120

Tongue River and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
12	Rowland Ditch Co.	T. L. Rowland	June 4 '90	Irrigation	.5	35
13	Ellison	Samuel Ellison	June 9 '90	"	.74	52
14a	Tongue R. Ditch Co. D., 2nd Appropriation	John A. Moore	Spring '91	"	2	140
14b	Ehrgood	Simon B. Ehrgood	" "	"	2	140
14c	South Side Tongue R. D., 2nd Appropriation	Mrs. Mary A. Emery	" "	"	.85	60
	Rowland Ditch Co.	William T. Jones				
	Evans	Simon J. Evans				
	McCarthy	Patrick McCarthy				
	Hanover	J. P. Robinson				
	Walker & Boyle	Lewis Walker and John Boyle				
	Birchby	Geo. Birchby				
	Tunnel	Wm. E. Wagner				
	Adams & Lord	Adams & Lord				

Owners of Rowland, Evans, McCarthy, Hanover, Walker & Boyle, Birchby, Tunnel, and Adams & Lord Ditches allowed further time to complete appropriation. Proof to be submitted to the Division Superintendent on or before March 1st, 1893.

COLUMBUS CREEK AND TRIBUTARIES.

1	Wyoming & Five Mile	Simon Kerne	Au. 16 '82	Irrigation	.25	10
	" " "	Geo. Ohlman	" " "	"	.67	40
	" " "	Mrs. J. R. Veach	" " "	Domestic Stock Irrigation	.34	16
	" " "	Marrion Harron	" " "	Irrigation	2.39	160
	" " "	John Walter Bill	" " "	Domestic Irrigation	1.81	120
	" " "	Geo. M. Wagner	" " "	Stock, Domestic Irrigation	1.31	85

Columbus Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Wyoming & Five Mile	John Snyder	Au. 16 '82	Domestic Irrigation	1.81	120
	“ “ “	S. J. Morrow	“ “ “	Stock Domestic Irrigation	1.38	90
	“ “ “	M. P. Ward	“ “ “	Irrigation	1.53	100
	“ “ “	C. Perry Cooper	“ “ “	“	1.1	70
	“ “ “	Milton Carter	“ “ “	“	.2	7
	“ “ “	Jacob Achenbach	“ “ “	“	.2	7
	“ “ “	D. E. Dilty	“ “ “	“	.96	60
	“ “ “	Robert Niver	“ “ “	“	1.1	70
	“ “ “	Mrs. Martha Wallace	“ “ “	“	5.6	385
	“ “ “	Emanuel Achenbach	“ “ “	“	1.38	90
	“ “ “	William Wagner	“ “ “	“	4.38	300
2	Whitcomb No. 1	Elias Whitcomb	May '83	Stock Irrigation	1.06	67
3	Brand Point	Henry Brand	April '86	Stock, Domestic Irrigation	.46	25
4a	Robinson & Carroll	Wm. N. Robinson	June '86	Irrigation	2.39	160
4b	“ ”	Geo. G. Carroll	” ”	”	2 39	160
5	Whitcomb No. 2	Elias Whitcomb	” ”	”	.1	6
6a	Wyoming & Five Mile, 2nd Appropriation	Simon Kerne	1890	”	.24	10
6b	“ “ “ “ “	Edward M. Owen	1890	Stock Irrigation Domestic	.24	10
6c	“ “ “ “ “	Mrs. M. E. Owens	1890	Irrigation	2.39	160

Columbus Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
7	Wheeler	J. V. Wheeler	Feb '90	Domestic Irrigation	.6	35
8	Spring	Joseph M. Lanning	June '91	Domestic Stock, Irrigation	.13	2
	Whitcomb No. 1	Hugo Beyer		Stock Domestic		
	" "	Alonzo H. Bainfield		Same		

YOUNG'S CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Glade Water	John D. Adams	April '84	Irrigation	1.93	60
	" "	J. W. Boyle		"		45
	" "	Lewis Walker		"		31
2	Peoples	George Lord	May '87	"	2.43	10
	"	C. E. Peoples		"		160

AMSDEN CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Amsden	B. Amsden, Jr., B. Amsden, Sr.	Spring '83	Irrigation	1.43	100
2	Pine Tree	A. Fredirkson	May '82	"	.86	60
3	Thorn & Amsden	Thorn Bros.	March '83	"	1.14	80
4	Miller	Frank D. Grissell	April '84	"	.71	50
5	Thorn & Amsden	B. Amsden, Jr.	July '84	"	.5	35
	" "	Thorn Bros.	1890		1.57	110

PASS CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	First Chance	C. F. Sexton, E. L. Dana	Spring '82	Irrigation	1.5	105
2	Unnamed	R. Atkinson	1883	"	.17	12
3	Ditches 1 & 2	L. D. Green	May '85	"	.57	40
4	Mill Ditch	T. R. Dana	Spring '85	Milling	15	
5	Roy No. 1	T. A. Powers	June '85	Irrigation	1	10
6	Church	Church Bros.	Aug. '86	"	10.02	714
7	Olsen	Mrs. D. M. Smith	March '87	"	.57	40
8a	Summit	E. L. Dana	April '87	"	1.29	90
8b	"	John Kennedy	" "	"	1	70
8c	"	J. W. Crew	" "	"	.21	15
8d	"	Michael Kennedy	" "	"	.36	25
8e	"	Peter Reynolds	" "	"	1	75
8f	"	Frank Tschirgi	" "	"	.43	30
8g	"	Clifton R. Evans	" "	"	.57	40
8h	"	T. R. Dana	" "	"	1	75
9	Engle	E. L. Dana, C. F. Sexton	April '87	"	1.86	130
10	Church, 2nd Appropriation	Jasper Stanley	1887	"	.07	5
11	Atkinson & Stanley	Robert Atkinson, Jasper Stanley	March '88	"	2.01	153
12	L. D. Green	L. D. Green	May '88	"	.86	60
13	Jones	Jones Ditch Co.	" '89	"	6.06	424
14	Stewart	J. W. Stewart	July '89	"	.64	45
15	Garden	Clarence Taffner	1889	"	.03	2
16	Roy No. 2	T. A Powers	May '90	"	.19	13
17	First Chance, 2nd Appropriation	T. R. Dana	Season '90	"	.36	25
	Summit	Thurston W. Atkins, Geo. F. Baker	Appropri	ation not	complete.	

Owners of Summit Ditch allowed further time to complete appropriation. Proof to be submitted to Division Superintendent on or before March 1st, 1893.

TWIN CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1a	Yonkee No. 1	Adolph Yonkee	Spring '85	Irrigation	.43	30
1b	Yonkee No. 2	Adolph Yonkee	" "	"	1	70
2	Gross	Chris Gross	May '86	"	1.71	120
3	Walsh	Jas K. Walsh	April '90	"	.64	45
	Brittain	Wesley Brittain		"	Appropriation not complete.	
	Minnie Kosticott	George F. Baker and Thurston W. Atkins				

Owners of Brittain and Minnie Kosticott Ditches allowed further time to complete appropriation. Proof to be submitted to Division Superintendent on or before March 1st, 1893.

TABLE No. 7. List of Certificates of Appropriations of Water in Water Division No. 1. Issued by the Board of Control at the March meeting, 1892.

LITTLE LARAMIE RIVER AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	*Union Pacific Tank	Union Pacific Railway Co.	1868	Domestic Railway	1	
2	Alsop Ditch No. 2	Alsop Estate, John W. Connors, Administrator	May '71	Domestic Irrigation	9.4	640
3	Judson, Sutphin & Co.'s Dam and Water Ditches Nos. 7, 4 and 5	Judson, Sutphin & Co.	April '74 May 1 '74	Irrigation	6.71	470
4	Higley Ditch	Ora Haley	Spring '74	"	3.6	240
5	Judson, Sutphin & Co.'s Dam and Water Ditches Nos. 1, 2, 8 and 9	Judson, Sutphin & Co.	Apr. 10 to May 5 '75	"	7.14	500
6	John W. Webb No. 1	John W. Webb	June '75	"	2.28	160
7	Hall & Sprague	Arthur W. Whitehouse	1875	Stock Domestic Irrigation	2.5	160
8	Lincoln	Philip H. Bath, Henry Bath	April '76	Irrigation	2.28	160
9	Bismarck	" " " "	" "	"	4.28	300
10	John W. Webb No. 3	John W. Webb	June '76	"	1.43	100
11	Triangle, Double Triangle, Jennie B. & M. B. Ditch	Arthur W. Whitehouse	1876	Irrigation Stock Domestic	11	760
12	Haley & L. Haley	Douglas-Willan Sartoris Co.	1876	Irrigation	4.57	320
13	Bath Nos. 1, 2 and 3	Henry Bath No. 1 Nos. 2 & 3	April '77 " '78	" "	 3.43	 240
14	William Fee	John Fee & Douglas-Willan Sartoris Co.	May '78	"	3.43	240
15	S. P. Christensen No. 3	S. P. Christensen	June '78	"	1.14	80

* For supplying locomotives and other railway purposes.

Little Laramie River and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
16	Albany L. & C. Co.'s Ditch No. 5 and Buckeye Ditch	Thos. Nelson & Stock Growers Nat'l Bank	Spring '78	Irrigation	10.28	720
16a	Pratt No. 1	" " " " " "	" "	"	3.14	220
17	Bruback No. 1	James Dougherty	" "	"	1.14	80
18	Slough No. 2	Charles Hecht	" "	"	.43	30
19	Peirce	Hall Bros.	June '78	"	2.85	200
20	John W. Webb No. 2	John W. Webb	" "	"	2.85	200
21	Hatton	W. E. Towle, John Reed, Mrs. S. A. Towle, Mrs. Maggie Reed	June '79	"	2.57	180
22	Bar F	John Fee	May '79	"	2.28	160
23	Fleming	Chas. Hecht	June '79	"	4.28	300
24	Dam Ditch	C. G. Logan, N. E. Gresley	April '80	"	.25	18
25	Hall Bros.	A. W. Whitehouse, Hall Bros.	" "	"	4.71	330
26	Peter Johnson Nos. 2 and 3	Peter Johnson	May '80	"	2.92	205
27	Gresley & Logan Meadow	N. E. Gresley, C. G. Logan	" "	"	7.43	520
28	Homestead No. 2	James M. May	" "	"	1.14	80
29	Homestead	Mrs. Elizabeth Adams	" "	"	.57	40
30	Bruback Nos. 1, 2 and 3	Douglas-Willan Sartoris Co.	Spring '80	"	1.71	120
31	Wolbol	Mads Wolbol	June '80	"	2.28	160
32	Grow	Chas. Hecht	" "	"	.28	20
33	Lee Hughs & Greasewood	A. W. Whitehouse	1880	Stock, Domestic Irrigation	6.5	440
34	Taylor	Christopher H. Jones	Sum'r '80	Irrigation	.64	45
35	Albany	W. E. Towle, John McCrary	April '81	"	4.28	300
36	Markle	S. P. Christensen	" "	"	1.14	80
37	S. P. Christenson Nos. 1 and 2	" "	May 1 '81	"	4.57	320

Little Laramie River and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
38	Victoria	Douglas-Willan Sartoris Co.	May '81	Irrigation	6.85	480
39	†Judson, Sutphin & Co.'s Dam and Water Ditches No. 3	†Judson, Sutphin & Co.	" "	"		80
40	Pascoe No. 1.	Paul Pascoe	" "	Stock, Domestic Irrigation	2.28	160
41	Alsop No. 1	M. A Carroll, and Alsop Estate, J. W. Connors, Administrator	" "	Same	24.50	1700
42	Fillmore	Ora Haley	Spring '81	Same	3.5	240
43	Kimmel	Chas. Hecht	June '81	Irrigation	.85	60
44	Terrell, Kellogg & Bramel Nos. 1 & 2	Martha E. Bramel	Sum'r '81	Domestic Irrigation	5	350
45	Adams	Elizabeth Adams	1881	Irrigation	5.01	360
46	Ward's Gulch	Ida May Davis	1881	"	.21	15
47	Carroll-Pascoe	Michael A. Carroll, Paul Pascoe	April '82	"	3.57	250
48	Carroll No. 1	Michael Carroll	" "	"	1.71	120
49	Deerlove No. 1	John Deerlove	" "	"	.57	40
50	Peter Johnson No. 1	Peter Johnson	May '82	"	.57	40
51	Alexandra	Douglas-Willan Sartoris Co.	" "	"	4.85	340
52	Cairo	" " " "	" "	"	.85	60
53	Hecht & Farrell	Charles Hecht, Fredrica Hecht, Edward Farrell	" "	"	14.28	1000
54	Alsop Ditch No. 3	Alsop Estate, John W. Connors, Administrator	May '82	Stock Irrigation	9.14	640
55	Abrams	Ludolph Abrams	" "	Irrigation	1.14	80
56	Sutphin-Abrams	" "	Spring '82	"	1.43	100
57	Louisa Baily Ditches Nos. 1, 2 & 4	Louisa Baily	June '82	"	2.71	190

† Same land described under Judson Sutphin Co. No. 2.

Little Laramie River and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
58	Bruback No. 2	James Dougherty	June '82	Irrigation	.85	60
59	Grant	Chas. Hecht	" "	"	1 14	80
60	Home	Philip Mandel	" "	Domestic Irrigation	5.71	400
61	Harris	Hall Bros.	April '83	Irrigation	2.28	160
62	Swan	Douglas-Willan Sartoris Co.	May '83	"	2 85	200
63	Copenhagen	Catherine Johnson	" "	"	3.14	220
64	Mill Creek	Douglas-Willan Sartoris Co.	" "	Stock Irrigation	15.75	1080
65	Motley	John McCreary	Spring '83	Irrigation	1.14	80
66	Dry Creek	" "	" "	"	.85	60
67	Kimball-Finfrock No. 2	Chas. A. Chase	June '83	"	9.14	640
68	Kimball No. 1	" "	" "	"	2.28	160
69	Mill Race	Elizabeth Adams	Sum'r '83	"	.07	5
70	Bird Water	Thos. Bird	April '84	"	12 43	880
71	Beaver	John McCreary	Spring '84	"	.85	60
72	Willan-Fee	Douglas-Willan Sartoris Co.	" "	"	1.43	100
73	Albany L. & C. Co.'s Ditch No. 2	Thos. Nelson & Stock Growers Nat'l Bank	" "	"	2.85	200
74	Peter Johnson No. 4	Peter Johnson	June '84	"	2.28	160
75	Hatton	W. E. Towle, John Reed, Mrs. S. A. Towle, Mrs. Maggie Reed	Sum'r '84	"	5.11	358
76	Wolbol-Baily	D. S. Baily, Mads Wolbol	June '84	"	1.14	80
77	Upper Fisher Water	Thomas Bird	April '85	"	11.43	800
78	Lower Bird	" "	May '85	"	12	840
79	Murphy	John Murphy	" "	"	6.85	480
80	Wolbol, 2nd appropriation	Mads Wolbol	Sum'r '85	"	3.43	240
81	Wolbol, Nos. 1, 2 & 3	Mads Wolbol, Katie Wolbol	June '85	"	4.57	320

Little Laramie river and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
82	Alpha	Catherine Johnson	July '85	Irrigation	4.57	320
83	North Fork No. 3	N. E. Gresley, C. G. Logan	" "	"	6.85	480
84	Martin Water	Thomas Bird	April '86	"	2.28	160
85	Middle Fisher	" "	" "	"	3.71	260.
86	Carroll No. 1	Michael Carroll	1886	"	.85	60
87	†Judson Sutphin No. 6	Judson, Sutphin & Co.	May '86	"		100
88	Snake	Douglas-Willan Sartoris Co.	June '86	"	25.14	1760
89	Blackwater	Judson Sutphin Co., Philip Mandel, Chas. Hecht, Fredrica Hecht, Mary McConnell	March '87	"	45.71	3200
90	Garden	Chas. Hecht	April '87	"	.42	30
91	Bussard	Chas. W. Bussard	" "	"	.9	65
92	Abrams Nos. 1 & 2	Ludolph Abrams	" "	"	1.71	120
93	North Fork No. 2	James M. May, J. M. Marble, Annie E. May, Alvira Marble	May '87	"	20.57	1440
94	Beta	Catherine Johnson	" "	"	.57	40
95	Gamma	" "	" "	"	.57	40
96	Bussard No. 2	Chas. W. Bussard	" "	"	1.14	80
97	Old Channel	Maren Christensen	" "	"	1.14	80
98	Wolbol No. 4	Mads Wolbol	" "	"	.57	40
99	Hecht & Farrell	Charles Hecht, Fredrica Hecht, Edward Farrell	" "	"	14.28	1000
100	Slough No. 1	Charles Hecht	Spring '87	"	2	140
101	Grant No. 2	" "	" "	"	.57	40
102	Hecht No. 1	" "	" "	"	.57	40
103	Alsop No. 1	M. A Carroll, and Alsop Estate, J. W. Connors, Administrator	"	Stock Domestic Irrigation	8.75	600

† Same land watered under Judson Sutphin Co. Ditch No. 7.

Little Laramie River and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
10	North Fork, Mountain, and Garden No. 2	Nils C. Nilson	June '87	Irrigation	5.71	400
105	Wards's Gulch	Ida May Davis	" "	Domestic		
				Irrigation	3.8	265
106	Hays & Bird	Thos. Bird, John J. Hays	July '87	Irrigation	10.28	720
107	Park	F. F. Baimforth, Robert Gardner,		Domestic		
		Roland Blackburn	Aug. '87	Irrigation	8.75	600
108	Carroll & Pascoe	M. A. Carroll, Paul Pascoe	Oct. '87	Stock	2.4	160
				Irrigation		
				Domestic		
109	John McCreary	John McCreary	" "	Irrigation	18.28	1280
110	Loback	Douglas-Willan Sartoris Co.	March '88	Stock		
				Irrigation		
				Domestic	59	4120
111	Domick	C. G. Logan, N. E. Gresley	" "	Irrigation	10.85	760
112	Bird	John Bird	April '88	"	1.14	80
113	Hays	John J. Hays	" "	"	1.14	80
114	Syms & Deerlove	John H. Deerlove	May '88	"	.57	40
115	John W. Webb No. 4	John W. Webb	" "	Stock		
				Irrigation	2.28	160
116	Baily-Wolbol	J. D. Baily, Mads Wolbol	" "	Irrigation	2.28	160
117	Pollock Nos. 1 & 2	H. W. Pollock	Spring '88	"	3.43	240
118	Corner Section No. 3	Chas. Hecht	" "	"		40
119	Jack's	" "	" "	"	.85	60
120	Mill Creek	Douglas-Willan Sartoris Co.	1888	"	3.43	240
121	McCall & Bird	William T. Bird	April '89	"	6.85	480
122	Deerlove No. 2	John Deerlove	" "	"	1 14	80
123	Hughs & Clark	Lewellen Hughs	May '89	"	6 85	480

Little Laramie River and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
124	‡Bellamy	Douglas-Willan Sartoris Co.	Nov. '89	Irrigation	13.71	960
125	Alma	Philip Bath	March '90	"		40
126	Poverty Flat	Philip H. Bath, Theodore Sydenham, Wm. Bath, Alfred Bath, John Reynolds	" "	"	12.85	900
127	†C. W. Hicks	C. W. Hicks	April '90	"		160
128	R. F. Hecht	R. F. Hecht	" "	"	5.71	400
129	Mammoth	Charles Hecht	June '90	"	28.57	2000
130	Beaver	John McCreary	May '91	"	4	280

SOLDIER CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Home	Chas. Connors	May '70	Stock Irrigation	1.8	120
2	Grant No. 1	Leroy Grant	" '84	Irrigation	4.57	320
3	Brophy No. 2, Kendall No. 1	Johh R. Brophy	July '84	"	1.43	100
4	Gramm Nos. 1 & 2	Otto Gramm	April '85	"	1.86	130
5	Gale No. 1	Chas. T. Gale	April '86	"	2.71	190
	Government	J. R. Brophy	" "	Stock Domestic Irrigation	2.71	60
	"	Caroline and Chas. Gale	" "	Irrigation		25
	"	Jas. P. Van Buskirk, Henry Boucher	" "	"		105
6	Gramm No. 3	Otto Gramm	Oct. '86	"	.71	50
7	Gale No. 2	Chas. T. Gale	April '87	"	.42	30
8	Gramm No. 4	Otto Gramm	March '89	"	.71	50

‡ This ditch is used as a feeder to the Loback Ditch. † Land claimed under Martin Water Ditch and Hays & Bird Ditch.

COOPER CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Judson Sutphin Co. Ditch No. 7	Judson, Sutphin & Co.	June '81	Irrigation	7.71	540
2	" " " " No. 4	" " "	April '82	"	5.57	390
3	" " " " No. 2	" " "	April '83	"	.14	10
4	" " " " No. 3	" " "	" "	"	.57	40
5	" " " " No. 5	" " "	" "	"	.57	40
6	C. N. Northrop No. 1	C. N. Northrop	April '84	"	1.43	100
7	" " No. 2	" "	May '84	"	4.28	300
8	" " No. 3	" "	June '84	"	13.71	960
9	" " No. 4	" "	" "	"	4.28	300
10	E. L. Dixon Nos. 1, 2, 3 and 4	E. L. Dixon	March '86	"	8.56	600
11	†Judson Sutphin Co. No. 1	Judson, Sutphin & Co.	May '86	"	1.71	120
12	" " " No. 6	" " "	" "	"	.28	20
13	Northrop No. 5	C. N. Northrop	Spring '88	"	12.14	850
14	" No. 6	" "	" "	"	1 43	100
15	" No. 7	" "	" "	"	1.43	100

FOUR MILE CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Coe & Carter Ditches Nos. 1, 2, 3, 4 and 5	Coe & Carter	Spring '83	Irrigation	18.30	1280
2	Terence Fee Nos. 1 & 2 (Identical with Coe Nos. 1 & 2)	Terence Fee	April '83	"	5.71	400
3	McKay No. 1	Roderick McKay and Wm. McKay	Oct. '86	"	1.14	80
4	McKay No. 2	" " " "	May '89	"	2.28	160
5	‡Dennis Fee Nos. 1 & 2	Dennis Fee	May '91	Stock Irrigation		
6	‡Laurence Fee Nos. 1 & 2	Laurence Fee	" "	Stock Irrigation		

† Claimed under Judson Sutphin No. 4. ‡ Same land claimed by Coe & Carter No. 1.

SEVEN MILE CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
1	G. R. Eykyn No. 1	Geo. R. Eykyn	Sept '81	Stock, Domestic Irrigation	2.5	160
2	Stillson No. 2	Luther E. Stillson	Spring '83	Same	1.25	75
3	G. R. Eykyn No. 3	Geo. R. Eykyn	March '85	Same	3	200
4	" " No. 3	" "	April '85	Stock Irrigation	4.4	300
5	Phillips Nos. 1, 2 & 3	Sam F. Phillips	May '86	Irrigation	4.57	320
6	Stillson No. 1	Luther E. Stillson	Spring '86	"	2.28	160
7	Battin	Judson Sutphin Co.	Fall '86	"	12.85	900
8	Eykyn Nos. 4 & 5	Geo. R. Eykyn	May '87	Stock Irrigation	2.8	190
9	S. F. Phillips No. 4	Sam F. Phillips	" '88	Irrigation	1.42	100
10	Boulder	Chas. Hecht	" '89	"	5.7	400

DUTTON CREEK AND TRIBUTARIES.

1	Baxter No. 1	Alsop Estate, John W. Connors, Administrator	Sum'r '78	Irrigation	9.14	640
2	Alsop Nos. 2 & 3	" " " " "	Spring '89	"	6.71	400
3	Alsop No. 4	" " " " "	" '80	"	1.14	80
4	Alsop No. 5	" " " " "	" "	"	2.28	160
5	Beach No. 2 Water	W. C. Clark Thornhill	April '84	"	2.85	200
6	Two Mile	Judson Sutphin Co.	June '84	"	11.43	800
7	Dutton Creek Water	" " "	" "	"	49.7	3480
8	Thornhill	W. G. Clark Thornhill	March '89	Domestic Irrigation Stock	7.25	480

PASS CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Rattlesnake Creek Pipe Line	Rattlesnake Creek Water Co.		Domestic	1.07	
2	Smiley No. 2	Robert A. Smiley	1876	Domestic Irrigation	3.6	240
3	Knuth	Charles L. E. Knuth	Spring'78	Irrigation	2.4	160
4	Foxhall	Angus D. Campbell	April '79	"	2.85	200
5	Rankin & Crone	Richard Rankin and Albert Crone	May '88	"	1.43	100
6	Allen	John W. Allen	April '81	"	4.28	300
7	Thode No. 1	John Thode and Earnest Thode	" '82	"	1.71	120
8	Smiley No. 1	Charles Smiley	March '83	"	3.57	250
9	School Section No. 1	Archibald Campbell	April '83	"	2.85	200
10	" " " 2	" "	May '83	"	3.43	240
11	Lee	Charles Harden	Spring '83	"	4.28	300
12	Shelton Allen	Shelton Allen	May '84	"	1.14	80
13	Crone	Albert Crone	Sum'r '84	"	6.57	460
14	Mead No. 1	Willard H. Mead	Sept '84	Irrigation Domestic	1.24	80
15	Rattlesnake No. 1	M. R. McDonald, H. B. McDonald	April '85	Irrigation	2.28	160
16	McDonald	Mark R. McDonald	" "	"	6.85	480
17	Lord	Archibald Cambell, James H. Hammond	" "	"	4.28	300
18	Garden	Jacob Bernhart	Spring'85	"	.01	1
19	Duncan Campbell	Duncan B. Campbell	May '85	"	9.14	640
20	Vienna	Richard T. Rankin	" "	"	12.85	900
21	Hat	W. B. Hugus	Sum'r '85	"	.28	20
22	Swan	" "	Nov. '85	"	7.14	500
23	Rankin & Crone	Richard T. Rankin and Albert Crone	1885	"	7.14	500
24	Allen & O'Mary	Geo. H. Allen and William O'Mary	April '86	"	1.14	80
25	O'Mary	William C. O'Mary	" "	"	.28	20

Pass Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
26	Lufkin	Elmer E. Lufkin	Oct. '86	Irrigation	1.71	120
27	Hardin	Charles Hardin, David Hardin	Dec. '86	"	.57	45
28	Stockwell	Geo. H. Stockwell	April '87	Irrigation Stock	3	200
29	Smiley No. 3	Newell K. Foster	May '87	Irrigation	4.57	320
30	Elk Mountain No. 2	Jacob Bernhart and David Hardin	" "	"	3.43	240
31	Lee No. 2	Charles Hardin	Spring '87	"	4.28	300
32	Thode No. 2	John Thode and Earnest Thode	July '88	"	2.85	200
33	Swan	Angus D. Campbell	Season '88	"	1.71	120
34	Elk Mountain No. 1	Mark R. McDonald	Sept '88	"	2.28	160
35	Knuth No. 2	Charles L. E. Knuth	Fall '88	"	.71	50
36	Oberg	Mrs. Sophie Oberg	May '89	"	.35	25
37	Smiley No. 1	Charles Smiley	Spring '89	"	.71	50
38	Rattlesnake No. 2	M. R. McDonald, H. B. McDonald	Dec. '89	"	2	140
39	Allen & O'Mary	Geo. H. Allen and William O'Mary	1890	"	1.14	80
40	Shelton Allen	Shelton Allen	1890	"	.43	30
41	Crone	Albert Crone	Jan'y '91	"	2	140
42	Mead No. 1	Willard H. Mead	Spring '91	"	1.43	100
43	Mead No. 2	" "	April '91	"	1	70
44	Hardin Robinson	Charles Hardin, Joseph Robinson and Frank Rider	" "			

Owners of Hardin-Robinson Ditch allowed further time to complete appropriation. Proof to be submitted to Division Superintendent on or before March 1st, 1893.

LAKE CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Brauer Nos. 1 and 2	William Brauer	1875	Irrigation Stock Domestic	2.3	160
2	Overflow of Lake	Fred W. Geddis	June '78	Irrigation	1.5	100
3	The Dock Eaton	" "	1879	"	2.85	200
4	Bullock	A. G. Bullock	April '81	'	.71	50
5	Bullock & Groomes No. 1	A. G. Bullock and Robert Groomes	March '84	"	2.85	200
6	Bullock & Groomes No. 2	" " " "	April '85	"	.35	25
7	Brauer Nos. 1 & 2	William Brauer	Dec. '86	"	2.28	160

Cedar Creek and Tributaries.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Cadwell	E. G. Ashley and Geo. McDonald	May '83	Irrigation	1.28	90
2	The Little Ditch	W. E. Meason	June '84	Domestic Irrigation	.4	15
3	High Line	E. G. Ashley and Geo. McDonald	Sept '87	Domestic Irrigation Stock	3.5	210
4	The Little Ditch	W. E. Meason	Spring '88	Irrigation	.1	5
5	Cedar Creek No. 1	David D. Wagoner	May '88	"	.42	30
6	Right Hand	E. G. Ashley	March '89	"	1.28	90
7	Meason No. 1	Geo. E. Meason	" "	"	4	280
8	The Little Ditch	W. E. Meason	Spring '90	"	.42	30
9	Alberina	E. G. Ashley	Sept. '90	"	6	420
10	Cedar Creek No. 2	David D. Wagoner	Nov. '90	"	.42	30
11	Mattix Nos. 1 & 2	Geo. Maties	April '91	"	.57	40

BRUSH CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Tilton No. 1	William E. Tilton	July '83	Irrigation Domestic	6.25	430
2	Tilton No. 2	" "	" "	Irrigation	3.71	260
3	Brush Creek Supply Ditch	J. D. Condict, Winthrop Condict, Caleb Cook, Brush & Beaver Creek Live Stock Co	July '84	Stock, Irrigation	22.43	1640
4	Condict Bros.' No. 2	Winthrop Condict, Jonathan Condict	May '85	Irrigation	2	140
5	" " No. 1	Winthrop Condict, J. D. Condict	" "	"	6.85	480
6	Windall Ditch Co.	Windall Ditch Co.	March '87	"	28.85	2020
7	High Line Canal	James M., Chas B., Lawrence G., and Frank C., Sterrett	March '88	"	5.71	400
8	Gross	Eugene C. Gross	May '88	"	1.71	120
9	A. C. Forrester	Chas. C. Young, Brush & Beaver Creek Live Stock Co., Jesse G. Bennett, and G. H. Reynolds	Aug. '89	"	8.86	600
10	Kelley	Elmer Kelley	April '91	"	.86	60
11	High Line Canal	James M., Chas. B., Lawrence G., and Frank C., Sterrett			Not complete.	

Owners of High Line Canal allowed further time to complete appropriation. Proof to be submitted to Division Superintendent on or before March 1st, 1893.

North Bear Creek and Tributaries.

1	North Bear Creek	Geo. D. Jenks	June '85	Irrigation	2.85	200
2	Keystone Nos. 2, 3, 4, 5, and 6	Alban Y. Jones	Au. 26 '86	"	2.71	190
3	Colwell Ditch, Ewing Ditch	" " "	Sept. '87	"	.86	60
4	Jones No 3	" " "	" '89	"	.85	60
5	Jones Nos. 1 and 2	" " "	Feb'y '90	"	.5	30 & 5
6	Allen Nos. 1 and 2	Robert P. Allen	May '90	"	1.28	80 & 10

BIG CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
1	Big Creek Water Ditch	Big Creek Live Stock Co.	May '82	Irrigation	18.4	1280
2	Condict No. 1	Geo. P. Condict	" '85	Stock Irrigation	1.71	120
3	Condict No. 2	" "	" '85	Domestic Irrigation	.70	40
4	Johnson No. 1	Wm. Tnrnbull, Louis G. Davis	" '85	Irrigation	1.14	80
5	Hunter	Big Creek Live Stock Co.	Spring '85	"	5.14	360
6	Johnson No. 2	Geo. P. Condict, Louis G. Davis, William Turnbull	June '86	"	2.28	160
7	Condict No. 3	Geo. P. Condict	May '87	"	3.43	240
8	North Fork Big Creek No. 1.	Frank Cunningham	July '87	"	1.71	120
9	Henry	Big Creek Live Stock Co.	May '88	"	11.42	800
10	Condict No. 4	Geo. P. Condict	" "	"	.57	40
11	Condict No. 5	" "	" "	"	.57	40
12	Turnbull	Geo. P. Condict, Louis G. Davis, William Turnbull	" "	"	1.71	120

CALF CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
1	Calf Creek No. 1	Frank O. Williams, ——— Jones	April '78	Irrigation	6.86	480
2	" " No. 2	" " " "	" "	"	2.28	160
3	" " No. 4	" " " "	March '89	"	1.14	80
4	" " No. 2, 2nd appropriation	" " " "	Spring '90	Domestic Irrigation	1.4	80

BEAVER CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	*Sears	Geo. R. Brown	July '84	Irrigation	.5	35
2	*Indian Creek No. 1	" "	April '85	"	1.07	75
3	Turnbull No. 2	William Turnbull	May '85	"	1 14	80
4	Collins No. 1	Thos. J. Collins, Chas. W. Collins	" "	"	2 85	200
5	Crout No. 1	Wm. Crout, David F. Crout and Thomas J. Collins	" "	"	4.28	300
6	Platt & Pryor	Isaac C. Platt, Thomas J. Collins and Elizabeth Crout	June '85	"	1.07	75
7	Crout No. 2	Wm. Crout and David F. Crout	July '75	"	1.14	80
8	Pants, Got Left, and Dennis Ditches	Arthur R. Couzins	April '86	"	3.07	215
9	Toothaker Bros.' Ditch	W. H. Toothaker and W. N. Toothaker	Nov. '86	"	2.14	150
10	Turnbull No. 1	Jas. King and William Turnbull	April '87	"	1.14	80
11	Kearns	Foster Kearns	May '87	"	1.28	90
12	*Indian Creek	M. D. Brown	" "	"	.43	30
13	Buffalo	Foster Kearns and Jas. Dettinger	April '88	"	.71	50
14	Dettinger	Jas. G. Dettinger	" "	"	1.07	75
15	Crout No. 3	Wm. Crout and David F. Crout	June '88	"	.57	40
16	Platt & Pryor	Isaac C. Platt, Elizabeth Crout and Thomas J. Collins	March '89	"	8	562
17	Antelope	Foster Kearns, Christopher Fingerlee	" "	"	2.88	200
18	*Indian Creek No. 2	Geo. R. Brown	Jan'y '89	"	.13	9

* Unsurveyed.

GRAND ENCAMPMENT RIVER AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
1	Nichols	Guy H. Nichols	Spring '79	Irrigation Domestic	2.5	160
2	Nichols Nos. 2 and 3	Ezra H. Nichols	Sum'r '79	Irrigation	2.5	160
3	Brownlee Nos. 1, 2 and 3	John Brownlee	Spring '85	"	1.51	100
4	Wagoner	S. W. Yost	July '85	"	4.57	320
5	Cliff & Nichols Nos. 1 & 2	Horace A. Nichols, John W. Cluff, Benjamin Culleton, Jerome Partridge	Feb. '86	"	4.28	300
6	Belvedere	James Parr, Noah Wagoner, Andrew Wagoner	March '86	"	3.28	230
7	Culleton	Benjamin Culleton	May '86	"	1.43	100
8	Peryam	William T. Peryam	July '86	"	1.14	80
9	Walford's Cottonwood Creek	William H. Walford	April '87	"	.04	3
10	Wagoner No. 3	Noah Wagoner	Spring'87	"	1.71	120
11	Grand Valley	Ezra Nichols, Amos Baggott, Guy Nichols, J. P. Culleton	May '87	"	10.85	760
12	†Cotton	John Wagoner	Sum'r '88	"	.05	4
13	Wagoner, 1st enlargement	S. W. Yost	Oct. '88	"	4.28	300
14	Cluff & Nichols Nos. 1 & 2	Horace A. Nichols, John W. Cluff	Sum'r '91	"	2.57	180

COW CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
1	Teddy No. 5	Albert H. Huston	April '79	Irrigation	8	560
2	Teddy No. 3	" "	May '79	"	1.14	80
3	Otto	" "	" "	"	1.43	100
4	Teddy No. 4	" "	" "	"	1.14	80
5	Huston No. 1	" "	April '80	"	.85	60
6	Teddy	" "	May '81	"	2.85	200

† Unsurveyed.

Cow Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
7	Pilson No. 1	Paul A. Rallie	May '82	Irrigation	2	140
8	Cow Creek Highland	Albert Walters, J. A. Crocheron, Elias P. Andrews, Jacob Fingerlee	March '85	"	9.71	680
9	Pilson No. 2	Paul A. Rallie	May '85	"	4.57	320
10	Eclipse	Willis E. Sears	1885	"	1.14	80
11	Pilson No. 1	Paul A. Rallie	1886	"	.57	40
12	Huston No. 2	A. H. Huston	April '86	"	4	280
13	Waldron	Cuthbert T. Waidron, Alexander Mutz	" "	"	.57	40
14	Pilson No. 3	Paul A. Rallie	May '86	"		60
15	Huston Supply	A. H. Huston	July '86	"	.57	40
16	Champion	Willis E. Sears	April '87	"	.35	25
17	Waldron No. 2	Cuthbert T. Waldron	May '87	"	.71	50
18	" Ditch	Cuthbert T. Waldron, Alexander Mutz	1887	"	5.85	410
19	Otto No. 2	A. H. Huston	May '88	"	.85	60
20	Teddy No. 2	" "	" "	"	2.28	160
21	Low Ditch	Albert Walters, John F. Wilcox, Chas. M. Wilcox, John Kurtz	June '88	"	4.28	300
22	Otto No. 3	A. H. Huston	April '89	"	3.43	240
23	Enterprise	Willis E. Sears	" "	Domestic	.25	
24	Alsup	John Alsup	May '89	Irrigation	.71	50
25	Wilcox	Chas. M. Wilcox, John F. Wilcox	June '89	"	1.28	90
26	Sears	O. P. Sears, Willis E. Sears	Oct. '89	"	3.43	240
27	Cow Creek Highland, 2nd appropriation	Albert Walters, Jacob Fingerlee, Elias P. Andrews, J. A. Crocheron	1889	"	1.57	110
28	Low, 2nd appropriation	Albert Walters et al.	1890	"	9.21	645

SPRING CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Centennial	Edgar F. Grout	Spring '79	Irrigation	1.71	120
2	Wagoner No. 2	Mary E. Hoyt, John Swanson, John J. Wagoner	July '79	"	.14	10
3	Wagoner No. 1	" " " " " "	" "	"	.14	10
4	Monroe No. 1	Samuel Monroe, Sr.	1880	"	1.14	80
5	Miner No. 1	Chas. S. Miner	April '81	"	.57	40
6	Miner No. 2	" "	" "	Domestic Irrigation	1.25	80
7	Kuykendall No. 1	W. L. Kuykendall	May '82	Irrigation	1.43	100
8	Kuykendall Nos. 2 & 3	" "	Sum'r '82	"	2.85	200
9	Miner Nos. 3 & 4	Chas. S. Miner, David Foutz	May '82	"	.28	20
10	Wagoner No. 3	Mary E. Hoyt, John Swanson, John J. Wagoner	July '82	"	1.71	120
11	Swazey	Edward L. Swazey	Aug. '82	"	1.43	100
12	Western	Mulford Hains, H. W. Hains	April '84	"	2.57	180
13	Central	" " " "	May '84	"	.57	40
14	North Side	Hattie S. Swazey	" "	"	3.43	240
15	Lateral from Wagoner No. 3	David Foutz	Sum'r '84	"	.17	12
16	Methodist Creek	Alexander McPhail	" "	"	.85	60
17	Hains	Mulford Hains, H. W. Hains	July '84	"	22.8	1600
18	South Spring Creek Irrigation Co. Ditch	Frank Williams, Geo. W. Fell, John Sorenson, ——— Jones, Elias J. Hewet, Chas. S. Miner	Jan'y '85	Stock Domestic Irrigation	17	1120
19	Ewett	James W. Heather	Feb'y '85	Irrigation	1.14	80
20	Wagoner No. 1	Mary E. Hoyt, John J. Wagoner, John Swanson	1885	"	1.9	135
21	Eastern	Mulford Hains, H. W. Hains	June '85	"	2.28	160

Spring Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
22	Douglass	John M. Douglas	May '85	Irrigation	1.71	120
23	Swazey North Spring	Edward L. Swazey	" "	"	5	350
24	Methodist Creek	Alexander McPhail	Early '86	"	10.57	740
25	Foutz	David Foutz	May '86	"	.57	40
26	Cherokee	Samuel L. Rhodes, James Degan, Erastus J. Foutz, Alexander McPhail, Nettie Foutz	July '86	"	1.28	90
27	Miner No. 5	Chas. S. Miner	Sept. '86	"	.36	25
28	Crooked	Joseph E. Page, Erastus J. Foutz, Jonathan D. Parker	March '87	"	3.43	240
29	Short Line	John Henry, Carrie Crawford	" '88	"	.21	15
30	Miner Nos. 3 & 4	Chas. S. Miner, David Foutz	Sum'r '88	"	.21	15
31	Wagoner No. 2	Mary E. Hoyt, John J. Wagoner, John Swanson	1888	"	2.28	160
32	Ewett	James W. Heather	"	"	9.71	680
33	Brubaker No. 2	Robert E. Cowen	May '88	"	2.28	160
34	Monroe	Frank White, Samuel Monroe	April '89	"	.85	60
35	Foutz Nos. 1 & 2	David Foutz	" "	"	.71	50
36	Crawford	Carrie Crawford	Sept '89	"	1.45	100
37	White	Frank White, James Atfield	May '90	"	.71	50
38	Canon	S. E. Garber, J. H. Bashol	" "	"	1	70
39	South Spring Creek Irrigation Co. Ditch	South Spring Creek Irrigating Co.	1890	"	13.71	960
40	Wagoner No. 3	Mary E. Hoyt, John Swanson, John J. Wagoner	"	"	.07	5
41	Monroe No. 2	Samuel Monroe	"	"	.43	30

JACK CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Garden	Jack Creek Land & Cattle Co.	1881	Irrigation	1.42	100
2	Forney	William G. Forney	April '82	Irrigation Domestic	2.25	140
3	Forney No. 2	" "	" "	Irrigation	1.42	100
4	Old Ditch	Chas. W. Burdick	May '82	Irrigation Domestic	6	400
5	†Mathewson No. 1	G. P. Mathewson	Spring '84	Irrigation	.71	50
6	Blydenburg & Morgan & North & South	Jack Creek Land & Cattle Co.	July '84	"	24.28	1700
7	†Mathewson No. 2	G. P. Mathewson	Fall '84	"	1.42	100
8	Forney Ditch Co.'s Ditch	Forney Ditching Co.	June '85	"	4.57	320
9	Number Thirty-four	Chas. W. Burdick	May '86	Irrigation Stock	8.75	600
10	Old Ditch	" "	Spring '86	Irrigation	2.28	160
11	Handy Ditch	Calvin L. Jessup and Geo. Sisson	June '86	"	.14	10
12	‡Mathewson Nos. 1 & 2	G. P. Mathewson	Sum'r '86	"	6.42	450
13	D. McPhail	Donald McPhail	July '88	"	9.14	640
14	†Bates-Ayres	O. W. Bates and B. F. Ayres	Fall '88	"	.14	10
15	Little Ditch	J. F. Rose	June '89	"	.35	25
16	Forney Ditch Co.'s Ditch	Forney Ditching Co.	1889	"	1.71	120
17	North Side	Geo. W. Forney	May '90	Irrigation Domestic	4.57	320
18	Number Thirty-four	C. W. Burdick	1890	Irrigation	.85	60
19	Handy Ditch	Calvin Jessup and Geo. Sisson	1890	"	1	70

† On unsurveyed land. ‡ On partly unsurveyed land.

BATES CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Bates Creek	Swan Land & Cattle Co. (Limited)	March '86	Stock Irrigation Domestic	10.5	700
2	Cheney	Geo. S. Martin	June '86	Irrigation	.07	5
3	Bowie No. 1	Kate E. Bowie	Aug. '86	Stock Irrigation	7.64	500
4	Blair & Crouse	Jake Crouse	Sept. '86	Stock Irrigation	6.68	450
5	Little Red	Fred E. Place	March '87	Stock Irrigation	.25	10
6	Clark	Daniel L. Clark	Aug. '87	Irrigation	.93	65
7	Home	Edward E. McGraugh	Sept '87	Domestic Irrigation	1.25	80
8	Bowie No. 2	Kate E. Bowie	Feb'y '88	Stock Irrigation	1.55	100
9	Richards	Chas. N. Richards	May '88	Stock Irrigation	.5	28
10	Cheney No. 3	A. G. Cheney	“ “	Stock Irrigation	.75	45
11	White Bros.'	A. R. White	July '88	Irrigation	.21	15
12	Neville, Garden Creek No. 2, Canal Creek No. 1	Geo. S. Martin	March '89	“	.38	27
13	Stinking Creek	Fred E. Place	May '89	“	3.13	240
14	Smith Creek	John L. Kerfoot	Spring '89	“	.35	25
15	Calman	Henry Trollop	“ ”	Stock, Irrigation	.4	20
16	ZI Ditch	Harold Bauner	July '89	Irrigation	.5	35

Bates Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
17	Cheney Nos. 1 & 2	William H. Cheney	May '89	Irrigation	.1	7
18	Kennedy & Leach	J. A. Kennedy & S. C. Leach	June '89	Stock Irrigation	.75	40
19	Posver No. 1	Frank J. Posver	Jan'y '90	Irrigation	.07	5
20	Trollop	J. L. Kerfoot	1890	Domestic Irrigation	.28	20
21	Red Creek Olson North Side Posver No. 2	Appropriations not completed.				

Owners of Red Creek, Olsen, North Side and Posver No. 2 Ditches allowed further time to complete appropriation. Proof to be submitted to the Division Superintendent on or before March 1st, 1893.

CHUGWATER CREEK.

1	F. M. Phillips	Laramie River Cattle Co., H. G. Hay, Secretary	May '73	Irrigation	2.85	200
2	Ramsey	Home Irrigation Co.	July '73	"	2.14	150
3	McUlvan No. 2	" " "	Sept. '74	"	3.57	250
4	Swan	" " "	May '75	"	2	140
5	Phillips	" " "	" "	"	1.14	80
6	‡Edwards No. 1	Chas. H. Edwards	" "	"	1	70
7	Owens	John Hunton Co.	April '86	"	3.42	240
8	McUlvan	Home Irrigation Co.	" "	"	2.14	150
9	Little Meadow	John Hunton Co.	" "	"	4.28	300
10	Big Meadow	" " "	" "	"	7.14	500

‡ Water appropriated from Spring Creek Branch.

Chugwater Creek—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
11	Kelley	Home Irrigation Co.	May '76	Irrigation	3.57	250
12	A. L. No. 1	" " "	" "	"	1.42	100
13	McPhee	" " "	Sept. '76	"	2.14	150
14	Guisleman	" " "	1877	"	2.85	200
15	Gifford	Standard Cattle Co.	Prior to 1878	"	1.43	100
16	McUlvan	Home Irrigation Co.	April '78	"	.71	50
17	Whitcomb No. 1	" " "	Aug. '78	"	3.57	250
18	McPhee No. 1	" " "	April '81	"	3.42	240
19	McDonald Ditch & Irrigation Co.	McDonald Ditch & Irrigation Co.	June '81	"	2	140
20	McDougall No. 1	Colin McDougall	" "	"	1.71	120
21	A. L. No. 2	Home Irrigation Co.	April '82	"	1.71	120
22	North and South Spring	Donald McDonald	May '82	"	1.14	80
23	John McDougall	John McDougall	Fall '82	"	.28	20
24	Chugwater No. 1	Chugwater Ditch Co.	March '83	"	4.14	500
25	Quinn	Coble & Coffman	April '83	"	.57	40
26	Iron Mountain No. 1	" "	May '83	"	4.28	300
27	Maverick	Estate John W. Collins	July '83	"	1.71	120
28	Whitcomb No. 2	Home Irrigation Co.	" "	"	2.85	200
29	Elkhorn No. 1	Johanna Odder	Aug. '83	"	.5	35
30	Knobe	Coble & Coffman	March '84	"	4.57	320
31	Nayes	Home Irrigation Co.	April '84	"	1.42	100
32	McUlvan No. 2	" " "	" "	"	3.57	250
33	Swan	" " "	" "	"	.57	40
34	Elkhorn No. 2	Johanna Odder	" "	"	.35	25
35	Grant No. 1	Robert Grant	" "	"	.35	25
36	Bordeaux	John Hunton Co.	" "	"	7.42	520
37	Gains No. 1	Wyoming Live Stock Co.	" "	"	.43	30

Chugwater Creek—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
38	Iron Mountain No. 2	Coble & Coffman	May '84	Irrigation	1.42	100
39	Kelley	Home Irrigation Co.	" "	"	1.42	100
40	Iron Mountain No. 3	Coble & Coffman	" "	"	1.14	80
41	G. O. Latham Nos. 1, 2 and 3	Mrs. E. R. Latham	" "	"	1.28	90
42	Iron Mountain No. 4	Coble & Coffman	" "	"	2.85	200
43	Chugwater Pipe Line Water Works	Union Pacific, Denver & Gulf Railway Co.	" "	Domestic Railway	.5	
44	Iron Mountain No. 6	Coble & Coffman	June '84	Irrigation	.57	40
45	G. O. Latham	Mrs. E. R. Latham	" "	"	4.28	300
46	Davidson No. 1	H. G. M. Davidson, B. B. Davidson	July '84	"	1.71	120
47	McDonald Ditch & Irrigation Co.	McDonald Ditch & Irrigation Co.	Spring '84	"	4.57	320
48	Ricker Nos. 1 and 2	Standard Cattle Co.	Sum'r '84	"	1.57	110
49	Ballue	Jarvis M. Fox	" "	"	1.07	75
50	Fox	" "	Fall '84	"	.71	50
51	Keystone	Keystone Association	Oct. '84	"	11.43	800
52	Phillips	Hattie A. Phillips	Feb. '85	"	.57	40
53	Parker Nos. 1 & 2	H. J. C. M. Woodyer	April '85	"	.64	45
54	Gains No. 2	Wyoming Live Stock Co.	" "	"	.57	40
55	Grant No. 2	Robert Grant	" "	"	.07	5
56	Diamond No. 1	Diamond Ranch	" "	"	.11	8
57	Grant No. 4	Robert Grant	" "	"	.1	7
58	G. O. Latham No. 5	G. O. Latham, E. R. Latham	" "	"	1.07	75
59	Ramsey	Home Irrigation Co.	May '85	"	1.42	100
60	Bordeaux	John Hunton Co.	" "	"	21.42	1500
61	Beulah Ranch No. 1	Standard Cattle Co.	" "	"	.71	50
62	Edwards No. 3	Chas. H. Edwards	" "	"	1.42	100
63	McDougall No. 2	Colin McDougall	" "	"	1.85	130

Chugwater Creek—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
64	Whipple & Hay	Laramie River Cattle Co., H. G. Hay, Secretary	June '85	Irrigation	2.28	165
65	Phillips No. 2	Hattie A. Phillips	" "	"	.14	10
66	Beulah Ranch No. 2	Standard Cattle Co.	July '85	"	4.28	300
67	South Ditch of Whitman & Conroy	A. F. Whitman, Geo. P. Conroy	Aug. '85	"	1.21	80
68	Sheik Nos. 1 & 2	Home Irrigation Co.	Sept. '85	"	1.28	90
69	Whitcomb No. 1	" " "	" "	"	17.14	1200
70	Plunkett	Coble & Coffman	Oct. '85	"	5.71	400
71	Maverick	Estate John W. Collins	" "	"	8.57	600
72	Chugwater No. 2	A. G. McGregor	April '86	"	4.28	300
73	Parker No. 3	H. J. C. M. Woodyer	" "	"	.57	40
73	Gains No. 1	Wyoming Live Stock Co.	" "	"	1	70
74	Pine Hill	H. G. M. Davidson, Anna Davidson	" "	"	4.28	300
75	Davidson No. 3	" " " "	May '86	"	.21	15
76	†Edwards No. 2	Chas. H. Edwards	" "	"		120
77	†Davidson No. 2	H. G. M. Davidson, B. B. Davidson	June '86	"		75
78	G. O. Latham No. 7	Mrs. E. R. Latham	" "	"	.35	25
79	Home	Home Irrigation Co.	" "	"	17.14	1200
80	Grant No. 5	Robert Grant	Aug. '86	"	.14	10
81	Jane McDonald	Jane McDonald	" "	"	2.85	200
82	Diamond No. 2	Diamond Ranch	" "	"	.17	12
83	Edwards No. 4	Chas. H. Edwards, H. G. M. Davidson	Sept. '86	"	3.14	220
84	Jones Nos. 1 & 2	John A. McArthur	Oct. '86	"	1.07	76
85	McArthur No. 1	" "	Feb. '87	"	.57	40
86	Chugwater No. 1	Chugwater Ditch Co.	March '87	"	1.42	100
87	Nickell No. 4	Kels P. Nickell	" "	"	.21	15
88	King	Keystone Association	Aug. '87	"	1.14	80

† Same land claimed under other ditches.

Chugwater Creek—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
89	Scotch Creek Nos. 1, 2, 3 & 4	John McDougall	Aug. '86	Irrigation	3.43	240
90	Ashton	" "	Sum'r '87	"	.42	30
91	Whitcomb No. 2	Home Irrigation Co.	Oct. '87	"	4.28	300
92	Antelope	Johanna Odder	" "	"	.28	20
93	McArthur No. 2	John A. McArthur	Feb. '88	"	.07	5
94	McDougall No. 2	Colin McDougall	" "	"	1	70
95	Home	Home Irrigation Co.	April '88	"	17.14	1200
96	Nickell Nos. 1, 2 & 3	Kels P. Nickell	" "	"	.52	37
97	Fremont	Standard Cattle Co.	May '88	"	.5	35
98	Gaisford	Hugh J. Gaisford	" "	"	4.28	300
99	Diamond No. 3	Diamond Ranch	June '88	"	.04	3
100	Basin Nos. 1, 2 & 3	Coble & Coffman	Oct. '89	"	3.71	260
101	Phillips No. 3	Hattie A. Phillips	Nov. '89	"	.14	10
102	Kelly Nos. 1, 2 & 3	John Kelly	June '90	"	3.43	240
103	Allen No. 1	Annie W. Allen	Aug. '90	"	.7	50
104	John McDougall	John McDougall	1890	"	.42	30
105	*Davidson Bros.' Reservoir	H. G. M. Davidson, B. B. Davidson	Sept. '90	"		
106	Pine Hill	" " " "	1890	"	1.78	125
107	Nickell Nos. 5 & 6	Kels P. Nickell	May '91	"	.33	23
108	Ashton	John McDougall	1891	"	.42	30

* Constructed to water same land as Davidson Bros. Ditches Nos. 1, 2 & 3.

LODGE POLE CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Chadwick No. 1	J. M. Chadwick	May '74	Irrigation	2.14	150
2	" " 2	" "	" "	"	2.14	150
3	Lannen No. 2	Estate of David Lannen	" "	"	2.14	150
4	Walbrack	" " "	" '75	"	3.57	250
5	Cheyenne Pass	" " "	" "	"	2.28	160
6	Dyer No. 7	Timothy Dyer	June '75	"	.35	25
7	" " 2	" "	" "	"	1.14	80
8	" " 3	" "	" "	"	.35	25
9	" " 4	" "	" "	"	.57	40
10	Highland No. 1	Royal Horse Association	March '76	"	.71	50
11	McDonald No. 2	Donald McDonald	May '76	"	.71	50
12	Freidman	Fannie M. Freidman	1876	"	.57	40
13	Ellingson No. 2	S. J. Ellingson	April '78	"	1.14	80
14	Dyer No. 1	Timothy Dyer	June '78	"	.71	50
15	Bridge Lower Ditch	John W. Bridge	June '79	"	1	70
16	McPhee No. 2	Agnes McPhee	Spring '80	"	.14	10
17	Tait No. 1	Robert Tait	March '81	"	2.28	160
18	McDonald No. 2	Donald McDonald	May '81	"	1.14	80
19	McPhee No. 1	Agnes McPhee	" "	"	.42	30
20	Ellingson	S. J. Ellingson	May '82	"	.71	50
21	Lannen	Estate of David Lannen	April '83	"	2.5	175
22	Agnes	Agnes Tait	" "	"	8.57	600
23	Tait & McDonald	Robert Tait, Donald McDonald	May '83	"	5.71	400
24	Islay No 1	Donald McPhee	Oct. '83	"	7.14	500
25	" " 2	" "	Nov. '83	"	5.71	490
26	Lodge Pole	Lodge Pole Ditch and Reservoir Co.	March '84	"	42	400
27	Tait No. 2	Robert Tait	April '84	"	1.43	100

Lodge Pole Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
28	North Lodge Pole	Lodge Pole Ditch and Reservoir Co. S. B. Tuttle, Sec.	Nov. '84	Irrigation	20 75	1440
29	Hillsdale Irrigating Co. No. 1	R. S. Van Tassell	April '85	"	5.71	400
30	" " " " 4	" "	" "	"	3.14	220
31	Chadwick No. 4	J. M. Chadwick	June '85	"	1.43	100
32	" " 3	" "	" "	"	2.14	150
33	Hillsdale Irrigating Co. No. 2	R. S. Van Tassell	July '85	Stock Irrigation	5.3	360
34	" " " " 3	" "	" "	Stock, Irrigation	7.3	500
35	" " " " 5	" "	" "	Stock Irrigation	5.8	400
36	Highland No. 2	Royal Horse Association	March '86	Irrigation	.14	10
37	McDonald No. 3	Donald McDonald	May '86	"	1	70
38	Bridge Upper Ditch	John W. Bridge	June '86	"	.85	60
39	McPhee No. 3	Agnes McPhee	March '87	"	.03	2
40	Dyer No. 5	Timothy Dyer	June '87	"	.71	50
41	" " 6	" "	" "	"	.21	15
42	" " 8	" "	" "	"	.71	50
34	Garland	Wm. J. Garland	Sept. '88	"	.71	50
44	Sturth	Henry Sturth	May '89	"	.57	40

LONE TREE CREEK AND TRIBUTARIES.

Priority No	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
1	Belvoir No. 1	Andrew Gilchrist	March '70	Irrigation	1.1	77
2	Buford Pipe Line Water Works	Union Pacific Railway Co.	1871	Railway	.5	
3	Lone Tree "M"	Warren Live Stock Co.	July '72	Irrigation	.15	11
4	Otto Pipe Line Water Works	Union Pacific Railway Co.	Sept '72	Railway	.5	
5	Lone Tree "G"	Warren Live Stock Co.	March '73	Irrigation	1.14	80
6	Kent Nos. 1 & 2	James McLaughlin	Spring '73	"	.5	35
7	Kent No. 3	" "	" "	"	.71	50
8	Duck Creek "A"	Warren Live Stock Co.	Aug. '73	"	1.3	91
9	Lone Tree "C"	" " " "	Sept. '73	"	.07	5
10	" " "D"	" " " "	" "	"	.4	28
11	" " "E"	" " " "	Oct. '73	"	.04	3
12	" " "K"	" " " "	Jan'y. '75	"	1.03	72
13	†Duck Creek "C"	" " " "	March '75	"		
14	Belvoir No. 2	Andrew Gilchrist	" "	"	.77	54
15	Goose Creek "A"	Warren Live Stock Co.	June '76	"	.54	38
16	" " "B"	" " " "	" "	"	1.14	80
17	Haygood No. 1	Allen W. Haygood	May '77	"	1.43	100
18	Goose Creek "F"	Warren Live Stock Co.	" "	"	.34	24
19	Belvoir No. 3	Andrew Gilchrist	June '77	"	.38	27
20	" " 4	" "	" "	"	.15	11
21	Lone Tree "A"	Warren Live Stock Co.	July '77	"	.38	27
22	Belvoir No. 5	Andrew Gilchrist	April '78	"	.68	48
23	Goose Creek "E"	Warren Live Stock Co.	May '78	"	.15	11
24	‡Haygood No. 2	Allen W. Haygood	June '79	"		50

† Waters same land as Duck Creek "A". ‡ Same land claimed under Haygood No. 1.

Lone Tree Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
25	Lone Tree “B”	Warren Live Stock Co.	June ’79	Irrigation	.68	48
26	“ “ “J”	“ “ “ “	July ’79	“	.9	64
27	“ “ “J No. 2”	“ “ “ “	“ “	“	.6	43
28	Goose Creek “G”	“ “ “ “	Nov. ’79	“	.68	48
29	Belvoir No. 6	Andrew Gilchrist	March ’80	“	.1	7
30	Fraser & Nelson Nos. 1 & 5	John M. Fraser, Thos. E. Nelson	April ’80	“	.35	25
31	Lone Tree “H”	Warren Live Stock Co.	March ’81	“	.25	18
32	Fraser & Nelson Nos. 2 & 4	John M. Fraser, Thomas E. Nelson	April ’82	“	.18	13
33	Lone Tree “I”	Warren Live Stock Co.	May ’83	“	4.11	288
34	Hosack No. 1	Joseph S. Hosack	Spring ’83	“	.35	25
35	Lone Tree “L”	Warren Live Stock Co.	Jan’y ’84	“	1.03	72
36	Lone Tree “O”	“ “ “ “	Feb. ’84	“	3.14	220
37	Belvoir No. 8	Andrew Gilchrist	April ’84	“	.5	37
38	Duck Creek “B”	Warren Live Stock Co.	“ “	“	.88	62
39	Lone Tree “P”	“ “ “ “	“ “	“	1.04	73
40	Willodson	Martin Willodson	May ’85	“	.35	25
41	Yensen No. 1	Soren Yensen	“ “	“	.17	12
42	Haygood No. 2	Allen Haygood	April ’86	“	.57	40
43	Nielsen No. 4	John Nielsen, Hans Nielsen	“ “	“	.11	8
44	Willodson No. 2	Martin Willodson	May ’86	“	.14	10
45	Anton	Anton Willodson	June ’86	“	.35	25
46	Nielsen Nos. 1, 2 & 3	John Nielsen, Hans Nielsen	“ “	“	.35	25
47	Yensen Nos. 2 & 3	Soren Yensen	“ “	“	.21	15
48	†Haygood Nos. 4 & 5	Allen W. Haygood	July ’87	“		

† Same land claimed under Haygood No. 1.

Lone Tree Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated
49	Adah	Sophronia Haygood	July '87	Irrigation	.35	25
50	Lone Tree "Q"	Warren Live Stock Co.	Spring '88	"	.28	20
51	Fraser & Nelson No. 3	John W. Fraser, Thos. E. Nelson	Fall '88	"	.14	10
52	Lone Tree "G"	Warren Live Stock Co.	1889	"	.57	40
53	Hosack No. 2	Joseph S. Hosack	April '90	"	.11	8
54	Terry Nos. 1, 2 & 3	Terry Yensen	May '90	"	.21	15
55	†Gleason Reservoirs Nos. 1, 2 & 3	Warren Live Stock Co. No. 1	March '86	"	1.28	160
		No. 2	" '87			
		No. 3	" '89			

† Water is claimed both before and after irrigation season for the purpose of filling these reservoirs.

TABLE No. 8. List of Certificates of Appropriations of Water in Water Division No. 4. Issued by the Board of Control at the March meeting, 1892.

FONTENELLE CREEK AND TRIBUTARIES.

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
1	Fontenelle No. 1	Alfred Pomeroy	Spring '78	Irrigation Stock	4	250
2	Holden Nos. 1 & 2	C. W. Holden	June '78	Irrigation Stock Domestic	2	120
3	C. W. Holden No. 2	" "	June '80	Irrigation	.57	40
4	Pomeroy No. 2	Alfred Pomeroy	Fall '78	Irrigation Stock	1.6	100
5	Daniel B. Rathburn Lower Ditch	Daniel B. Rathburn	Spring '79	Irrigation	1.14	80
6	" " Upper "	" "	" "	"	.57	40
7	Hansen	Ariel Hansen	Sum'r '81	"	1.28	90
8	†Justin Pomeroy	Gorman Bros.	Spring '82	"	1.42	100
9	Roney R. Pomeroy No. 1	Roney R. Pomeroy	Spring '84	Domestic Irrigation	.5	25
10	Holden Irrigating Ditch No. 1, Extension	C. W. Holden	Oct. '85	Irrigation	2.85	200
11	Homestead	Chas. Rathburn	April '86	"	1.14	80
12	Rathburn & Pomeroy	Chas. Rathburn, Alfred Pomeroy, Hattie Pomeroy	May '86	Stock Irrigation	4	260
13	McCray	Geo. H. McCray	" "	Irrigation	1.42	100
14	‡Chas. Rathburn No. 2	Chas. Rathburn	Spring '87	"		20
15	R. R. Pomeroy No. 2	Roney R. Pomeroy	July '87	"	1.14	80
16	" " No. 3	" "	" "	"	.85	60
17	Island	Ariel Hansen, Agnes Hansen	April '88	"	2.85	200
18	†Justin Pomeroy	Thomas J. and Peter J. Gorman	" "	"	2	140

† On unsurveyed land. ‡ Same description as in Homestead Ditch.

Fontenelle Creek and Tributaries—*Continued.*

Priority No.	Name of Ditch.	Name of Appropriator.	Date of Priority.	Use to which Applied.	Amount of Appropriation.	Acres Irrigated.
19	Holden Irrigating Ditches Nos. 3 & 4	C. W. Holden	Sept. '88	Irrigation	6.28	440
20	Roney R. Pomeroy No. 4	Roney R. Pomeroy	Spring '89	"	1.07	75
21	" " No. 2	" "	" "	"	1.14	80
22	†Gorman Bros.' North Ditch	Peter J. and Thomas J. Gorman	Aug. '89	"	1.42	100
23	Fontenelle Irrigating	Ariel Hansen, Daniel Rathburn, Chas Rathburn, Nellie Rathburn	Sept. '89	"	1.42	100
24	†Justin Pomeroy	Thomas J. and Peter J. Gorman	1890	"	2.42	170
25	Jacob Herschler No. 1	Jacob Herschler	1891	"	.5	35
26	" " No. 2	" "	May '91	"		

† On unsurveyed land.

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